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PUBLIC WORKS DEPARTMENT, PUNJAB.

IRRIGATION BRANCH.

ADMINISTRATION REPORT

FOR

1915-1916.

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ADMINISTRATION REPORT FOR THE YEAR 1915-16.

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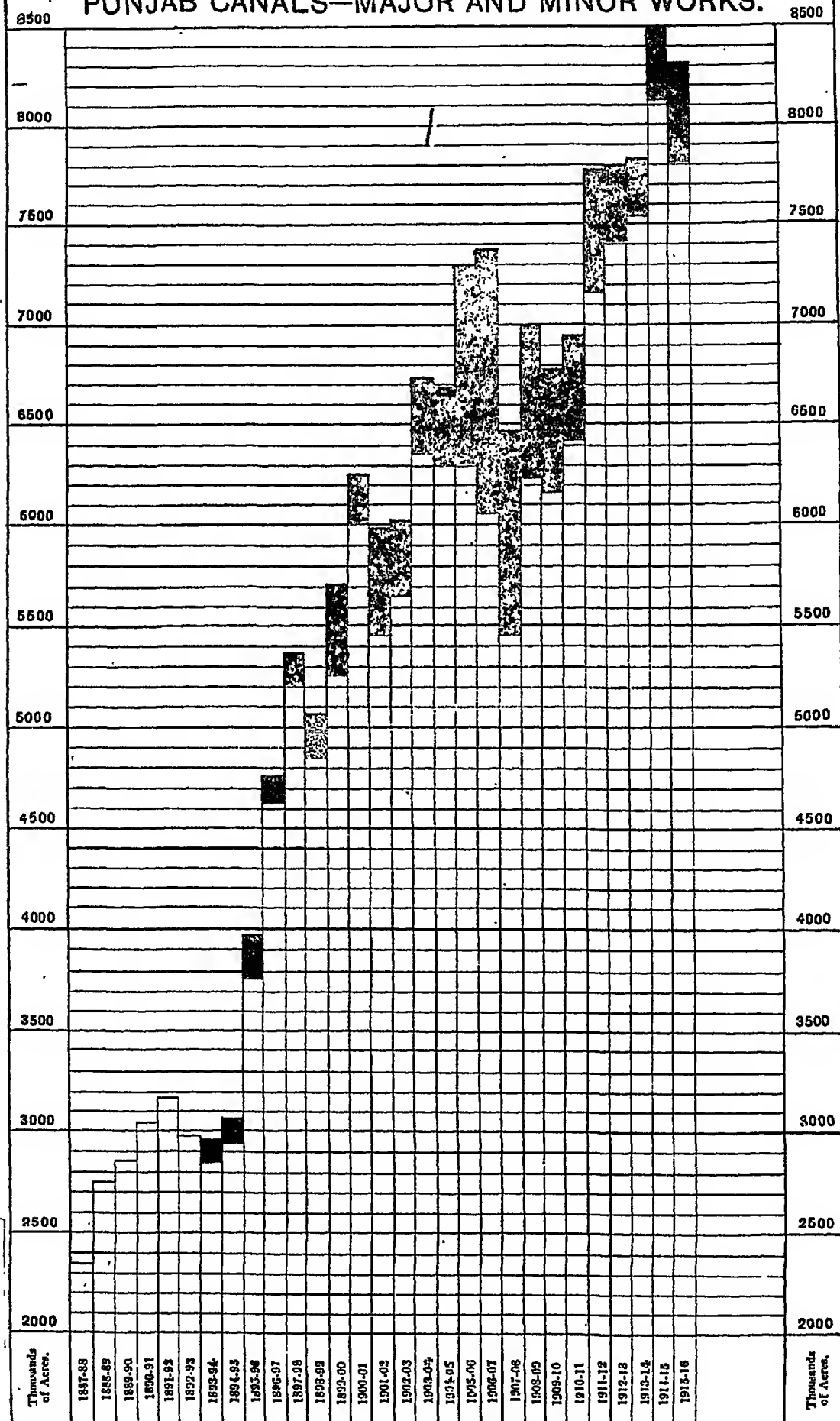
PUNJAB CANALS.

YEAR.	AREA IRRIGATED, IN ACRES.		
	Punjab Canals, Major Works.	Punjab Canals, Minor Works.	Total.
1867-1888	1,422,775	918,328	2,341,103
1888-1889	1,749,957	997,426	2,747,383
1889-1890	1,868,456	994,710	2,863,166
1890-1891	2,083,500	982,950	3,066,450
1891-1892	2,141,392	1,019,154	3,160,546
1892-1893	1,847,682	1,079,709	2,927,391
1893-1894	1,903,654	958,664	2,862,318
1894-1895	1,855,858	1,063,296	2,919,154
1895-1896	2,852,383	939,200	3,791,583
1896-1897	3,619,303	900,110	4,519,413
1897-1898	4,053,259	1,158,860	5,212,119
1898-1899	3,972,501	984,264	4,956,765
1899-1900	4,384,972	859,522	5,244,494
1900-1901	4,612,852	1,357,609	5,970,461
1901-1902	4,491,838	981,521	5,473,359
1902-1903	4,864,274	815,690	5,679,964
1903-1904	5,610,787	779,547	6,390,334
1904-1905	5,689,132	617,252	6,306,384
1905-1906	6,163,369	751,067	6,914,436
1906-1907	5,902,995	803,317	6,706,312
1907-1908	5,515,386	521,558	6,036,944
1908-1909	6,385,050	968,090	7,353,140
1909-1910	6,117,004	900,607	7,017,611
1910-1911	6,270,757	956,285	7,227,042
1911-1912	7,469,615	862,217	8,331,832
1912-1913	7,461,251	968,130	8,429,381
1913-1914	7,351,721	971,748	8,323,469
1914-1915	7,883,628	1,079,413	8,963,041
1915-1916	7,982,532	902,279	8,884,811

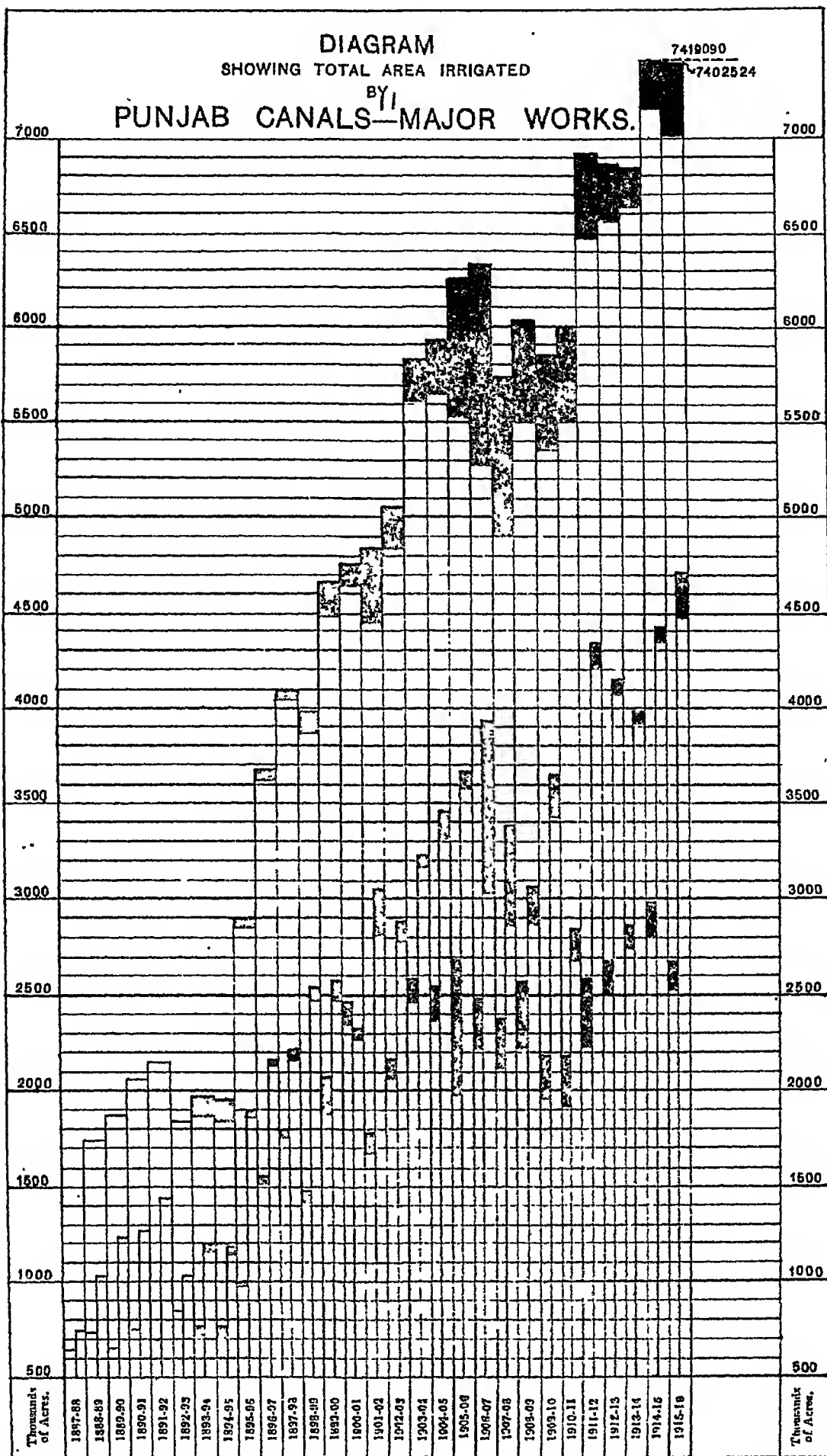
From 1894-1895 to 1905-1906 the total areas shown are *net*, thereafter the areas are *gross*.

The areas include the Swat River Canal up to 1900-1901; after which date the canal was transferred to the North-West Frontier Province.

DIAGRAM SHOWING TOTAL AREA IRRIGATED BY **PUNJAB CANALS—MAJOR AND MINOR WORKS.**



The black portions represent area remitted; the white, net area, from the year 1893-94.



REFERENCES.

The areas irrigated annually are shown by the black line columns, the first sub-division of each annual column being the "Khari" area, coloured red, and the second the "Rabi" area, coloured blue.
The black portions represent area remitted; the drab, net areas, from the year 1893-94.

PUNJAB CANALS, MAJOR WORKS.

YEAR.	AREA IRRIGATED, IN ACRES.			REMARKS.
	Kharif.	Rabi.	Total.	
1887-1888 ...	615,846	776,929	1,422,775	Lower Chenab Canal opened.
1888-1889 ...	715,632	1,034,325	1,749,957	
1889-1890 ...	661,677	1,201,779	1,863,456	
1890-1891 ...	757,535	1,275,965	2,033,500	
1891-1892 ...	697,454	1,446,938	2,144,392	Sirsa Branch of Western Jumna Canal opened.
1892-1893 ...	323,235	1,024,647	1,347,882	Decrease due entirely to the favourable winter rains of 1892-93 which greatly contracted the irrigated rabi area.
1893-1894 ...	711,001	1,192,653	1,903,654	Decrease as compared with 1891-92, due to general rainfall in rabi 1893-94, and would have been greater but for new irrigation on Chenab Canal.
1894-1895 ...	703,930	1,151,925	1,855,855	Decrease due to very favourable rainfall during rabi, particularly in Sirhind and Western Jumna Canal tracts.
1895-1896 ...	585,827	1,866,556	2,452,383	Increase chiefly due to partial failure of rains of 1895 and subsequent drought.
1896-1897 ...	1,534,969	2,114,334	3,649,303	Increase due to drought.
1897-1898 ...	1,777,565	2,275,724	4,053,289	Increase due to favourable year for irrigation and extensions.
1898-1899 ...	1,413,822	2,458,679	3,872,501	Decrease in kharif due to favourable state of rivers and scanty rainfall.
1899-1900 ...	1,888,396	2,496,574	4,384,972	
1900-1901 ...	2,351,174	2,268,678	4,612,852	
1901-1902 ...	1,686,043	2,805,795	4,491,838	Lower Jhelum Canal opened.
1902-1903 ...	2,071,363	2,792,911	4,864,274	The Upper Sutlej Inundation Canals were transferred from head "Minor Works" to "Major Works" from 1st April 1902.
1903-1904 ...	2,450,739	3,160,048	5,610,787	The Indus Inundation Canals were transferred from head "Minor Works" to "Major Works" from 1st April 1903.
1904-1905 ...	2,381,786	3,307,316	5,689,102	
1905-1906 ...	2,294,460	3,848,911	6,143,371	Decrease in kharif due to cotton failure.
1906-1907 ...	2,435,219	3,467,776	5,902,995	
1907-1908 ...	2,226,291	3,289,095	5,515,386	Decrease due to abnormally low supplies in the rivers.
1908-1909 ...	2,695,518	3,680,532	6,385,050	
1909-1910 ...	2,285,870	3,831,134	6,117,004	
1910-1911 ...	2,254,333	4,016,424	6,270,757	
1911-1912 ...	2,755,324	4,714,321	7,469,645	
1912-1913 ...	2,929,309	4,531,942	7,461,251	Upper Chenab Canal opened.
1913-1914 ...	3,069,950	4,281,771	7,351,721	Lower Bari Doab Canal opened.
1914-1915 ...	3,184,751	4,698,877	7,883,628	
1915-1916 ...	2,836,578	5,095,954	7,932,532	Upper Jhelum Canal opened. Decrease in kharif due to drought and abnormally low supplies in the rivers.

The areas include the Swat River Canal up to 1900-1901, after which date the canal was transferred to the North-West Frontier Province.

From 1894-95 to 1905-1906 the total areas shown are *net*; thereafter the areas are *gross*.

PUNJAB CANALS MINOR WORKS.

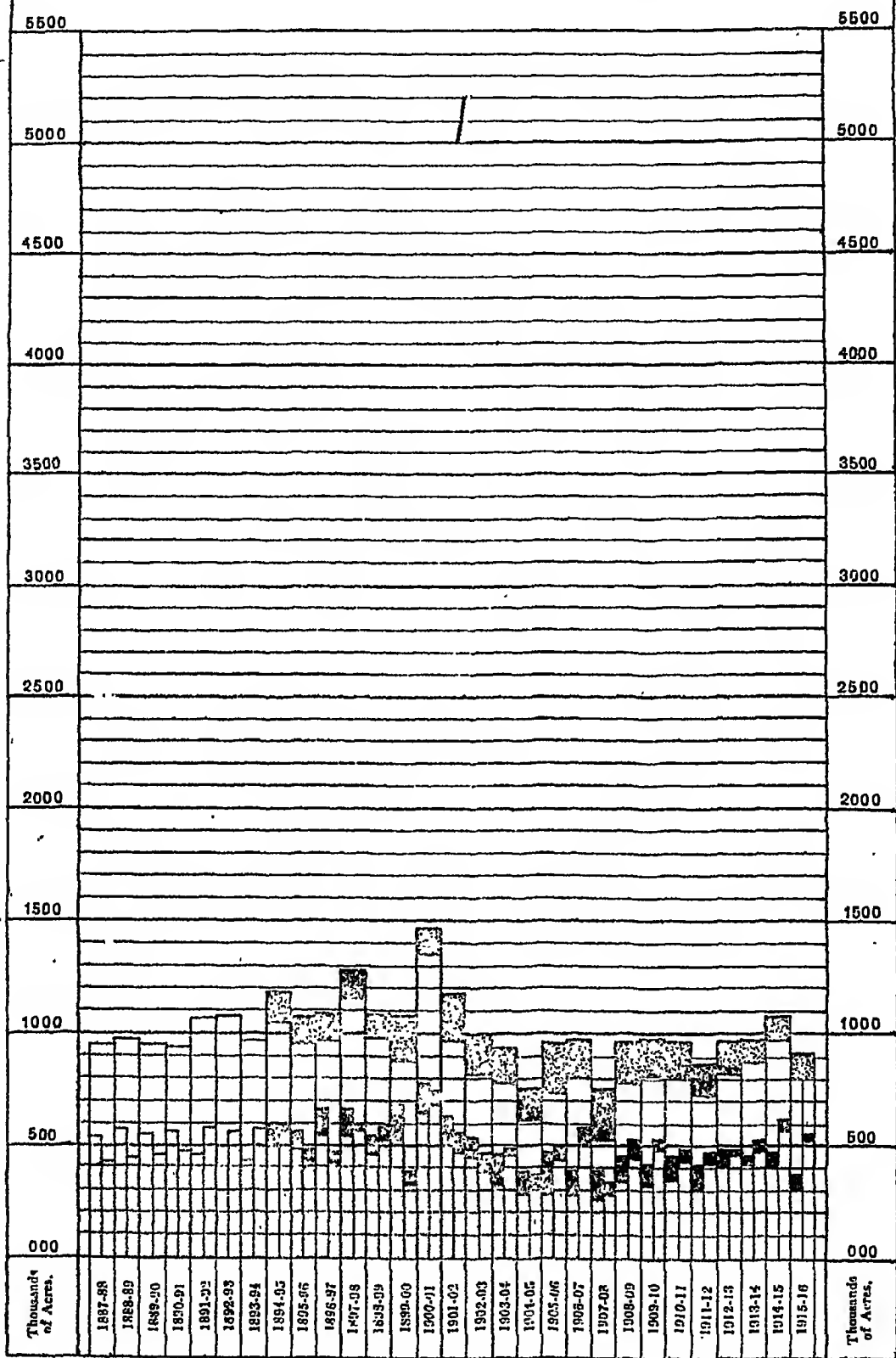
YEAR.	AREA IRRIGATED, IN ACRES.			REMARKS.
	Kharif.	Rabi.	Total.	
1887-1888	505,093	413,233	918,323	
1888-1889	571,558	425,870	997,428	
1889-1890	542,112	452,593	994,710	
1890-1891	520,408	462,548	982,956	
1891-1892	452,490	596,664	1,049,154	
1892-1893	491,151	588,558	1,079,709	Rivers rose late, but subsequent supplies were good, and rainfall was favourable, the result being the largest area on record up to date.
1893-1894	409,917	548,747	958,664	Decrease due to the destruction of kharif crops by high floods and to less favourable working of the canals.
1894-1895	500,248	553,018	1,053,266	
1895-1896	477,957	461,243	939,200	
1896-1897	533,745	426,365	960,110	
1897-1898	565,582	592,778	1,158,360	
1898-1899	453,402	530,862	984,264	
1899-1900	520,893	333,629	854,522	
1900-1901	669,563	688,136	1,357,699	
1901-1902	508,416	573,103	981,521	
1902-1903	424,819	390,871	815,690	Decrease due chiefly to the transfer of the Upper Sutlej Inundation Canals from head "Minor Works" to "Major Works" from 1st April 1902.
1903-1904	316,418	463,129	779,547	Decrease due chiefly to the transfer of the Indus Inundation Canals from head "Minor Works" to "Major Works" from 1st April 1903.
1904-1905	296,636	320,616	617,252	
1905-1906	298,279	452,788	751,067	
1906-1907	295,898	507,419	803,317	
1907-1908	255,074	266,494	521,568	
1908-1909	412,083	526,608	938,691	
1909-1910	426,020	513,587	939,607	
1910-1911	459,270	497,015	956,285	
1911-1912	402,641	459,606	862,247	
1912-1913	467,937	500,173	968,110	
1913-1914	464,872	506,871	971,743	
1914-1915	466,107	613,306	1,079,413	
1915-1916	392,607	539,672	932,279	Decrease due to drought and abnormally low supplies in the rivers.

The above includes the areas irrigated by the Shahpur Provincial Canals from 1890-1891 inclusive.

The above includes the areas irrigated on Ghaggar Canals, British and Bikaner State.

From the year 1894-1895 to 1905-1906 the areas shown are net; thereafter the areas are gross.

DIAGRAM **SHOWING TOTAL AREA IRRIGATED** **BY** **PUNJAB CANALS—MINOR WORKS.**



REFERENCES.

The first sub-division of each annual column denotes the "Kharif" area, coloured red, and the second the "Rabi" area, coloured blue.
 The black portions represent area remitted; the drab, net areas, from the year 1894-95.

PUNJAB CANALS, MAJOR WORKS.

Year.	Capital outlay, Direct and Indirect, to end of year.	Interest charges to end of year.	Net revenue to end of year.	Accumulated profits to end of year (column 4—column 3).	FOR THE YEAR.			
					Gross revenue.	Working expenses.	Net revenue.	Percentage on capital.
1	2	3	4	5	6	7	8	9
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1887-1888	5,76,25,823	3,18,46,784	5,09,85,681	1,96,85,807	40,06,923	17,01,248	28,04,675	3.99
1888-1889	5,89,48,409	3,40,74,458	5,33,27,638	1,02,53,186	48,04,994	19,72,987	28,32,007	4.06
1889-1890	6,00,93,478	3,53,49,808	5,61,80,820	1,08,80,512	49,06,797	21,14,115	28,52,682	4.74
1890-1891	6,24,71,861	3,86,98,707	5,08,37,074	2,11,45,307	58,80,440	21,73,686	36,56,754	5.85
1891-1892	6,70,91,026	4,11,74,523	6,06,26,126	2,24,51,613	60,40,990	32,51,938	37,89,052	5.65
1892-1893	6,97,92,621	4,37,69,997	6,79,53,641	2,42,84,647	63,69,140	34,51,631	43,57,518	6.24
1893-1894	7,81,89,876	4,65,48,772	7,08,89,481	4,43,40,710	53,56,007	24,45,080	29,05,547	3.95
1894-1895	7,64,95,573	4,91,29,482	7,42,04,493	2,47,75,081	69,65,551	26,50,549	33,15,002	4.38
1895-1896	8,02,57,037	5,24,41,565	7,87,76,591	2,53,37,626	70,09,254	28,40,474	42,57,780	5.81
1896-1897	8,41,00,265	5,56,01,216	8,00,94,033	3,10,32,817	1,09,44,448	30,87,005	78,57,448	9.34
1897-1898	8,70,19,865	5,86,92,163	8,56,26,222	3,67,44,653	1,21,88,419	31,86,227	90,02,192	10.05
1898-1899	8,92,16,631	6,22,82,641	10,41,91,514	4,22,09,173	1,24,07,093	35,51,505	88,55,588	9.98
1899-1900	9,00,47,216	6,57,49,487	11,87,57,761	4,80,28,574	1,31,14,661	31,23,514	92,85,944	10.21
1900-1901	9,20,76,977	6,62,70,350	12,40,93,336	5,46,21,657	1,36,16,136	43,01,551	1,03,14,485	11.20
1901-1902*	8,04,41,635	6,99,80,552	13,16,08,916	6,16,78,364	1,46,85,198	43,26,910	1,03,08,270	11.53
1902-1903	10,31,61,088	7,53,36,649	14,45,26,777	8,01,59,923	1,66,14,593	48,22,673	1,17,91,921	11.80
1903-1904	10,69,07,917	8,63,36,374	16,82,78,899	7,70,42,625	1,85,73,691	67,18,071	1,28,55,620	12.02
1904-1905	10,87,88,519	8,41,50,907	17,16,51,245	8,71,91,938	1,96,10,593	62,38,247	1,33,72,346	12.20
1905-1906	11,01,61,719	8,56,34,692	18,37,47,798	9,61,11,100	1,83,36,528	65,00,266	1,17,46,302	10.68
1906-1907	11,11,16,550	9,23,04,047	19,79,51,511	10,56,47,784	2,21,75,797	60,78,067	1,51,97,700	13.08
1907-1908	11,23,83,171	9,69,81,870	21,10,52,103	11,50,70,238	2,02,79,689	71,59,407	1,81,00,293	11.04
1908-1909	11,29,02,325	9,96,67,325	22,48,80,401	12,52,23,076	2,11,00,012	72,71,714	1,88,28,298	12.25
1909-1910	11,33,18,773	10,33,19,741	23,84,61,134	13,60,41,893	2,23,99,978	70,19,245	1,44,80,733	12.78
1910-1911	11,43,81,721	10,70,28,098	25,49,75,785	14,79,47,622	2,34,16,492	78,03,291	1,56,14,051	13.60
1911-1912	11,62,22,514	11,08,11,169	27,37,29,708	16,29,18,699	2,71,10,441	83,50,458	1,87,53,983	16.18
1912-1913	14,62,09,761	11,86,74,857	30,78,41,160	17,91,80,812	3,37,03,380	86,81,029	2,41,11,401	16.48
1913-1914	16,77,87,610	13,58,50,785	32,37,69,670	19,84,18,895	3,47,39,517	88,11,016	2,59,28,501	16.45
1914-1915	17,17,13,718	18,11,06,094	34,90,07,686	21,79,01,583	5,45,62,445	93,24,449	2,52,87,996	14.70
1916-1916	21,69,51,484	14,40,61,281	37,20,65,054	22,56,04,878	5,45,89,804	1,09,81,516	2,36,58,288	10.90

*Excludes the figures relating to the Beas River Canal, which now belongs to the North-West Frontier Province. The figures up to 1900-1901 include the figures of that canal.
The gross revenue in column 6 is that actually collected during the year and differs from the revenue as assessed on the area irrigated in the year.

GOVERNMENT OF THE PUNJAB
PUBLIC WORKS DEPARTMENT.

Irrigation Branch.

No. 1218 R. I.

The 22nd November 1916.

Resolution by His Honour the Lieutenant-Governor of the Punjab and its Dependencies.

READ—

Administration Report by the Chief Engineer, Irrigation Works, Punjab, of the Canals in the Punjab for the year 1915-16.

Capital Outlay.

THE capital outlay (direct and indirect) on Productive or Major Irrigation Works, in operation at the end of the year 1915-16, was Rs. 23,24,13,967, including Rs. 1,54,62,483 contributed by Native States.

2. The Imperial expenditure incurred during the year was Rs. 48,20,389. Of this Rs. 41,18,752 were expended on the Triple Canal Project, *viz.*, Rs. 12,44,081 on the Upper Chenab Canal, Rs. 9,30,981 on the Lower Bari Canal and Rs. 19,43,740 on the Upper Jhelum Canal. On the other open canals the expenditure was comparatively small, except on the Upper Bari Doab and the Indus Inundation Canals. On the former 3½ lakhs were spent chiefly on the Hydro-electric Installation at Amritsar, remodelling the head-works at Madhopur and lining the Main Branch Lower with cement plaster. The large expenditure on the Indus Inundation Canals was incurred almost wholly on the scheme for giving a perennial supply of water for irrigation to the new Dera Ghazi Khan Municipality and the lowering of the bed of the head reach of the Manka Canal.

An expenditure of Rs. 97,000 was incurred on the Lower Chenab Canal mainly in connection with the measures for the prevention of water-logging.

3. On Minor Canals for which capital accounts are kept, *viz.*, the Shahpur and the Ghaggar Canals, the capital outlay during the year, was only nominal. The expenditure up to date on these canals amounts to Rs. 8,77,485, which includes Rs. 2,85,442 contributed by the Bikaner State towards the cost of the Ghaggar Canals.

Nature of Seasons.

4. The climatic conditions for the kharif crop were unsatisfactory, Rain in February and March 1915 helped the early kharif sowings, but thereafter the crop received little or no assistance from rain. The monsoon was a marked failure. Temperatures were abnormally high throughout the season. The dry weather caused a scarcity of fodder in the early kharif, particularly in the districts of Rohtak and Hissar and in Jind and Patiala States. The scanty monsoon kept river supplies low and the inundation canals drew less water than usual. The demand for canal water during the kharif season, was very keen, but on the perennial canals it was, on the whole, satisfactorily met as the river supplies, though lower than usual, were under complete control, and were judiciously distributed.

The kharif conditions were repeated in the rabi, early sowings were helped by moderate rainfall in September and October. The winter rains failed almost completely. Owing to this and the light snowfall in the hills, the river supplies were much lower than usual and the canal supply reached a minimum on all the rivers in the Province, the deficiency being most marked on the Western Jumna. At the same time the demand for water by the cultivators was intense, and all the energy, skill and patience of the officers of the

Department were required to adjust an abnormally short supply to an exceptionally large demand. The Lieutenant-Governor has much pleasure in recording that the results were successful beyond all anticipation, for, though the number of waterings had to be considerably reduced, the careful and equitable distribution matured a fairly good crop on an exceptionally large area.

The year was free from widespread calamities. As usual in very dry hot weather, grass-hoppers and other insects did much damage to the crops on all the canals, and more especially on the newer ones. Boll-worm also damaged the cotton crops on the Lower Chenab and Lower Jhelum Canals where special remissions had to be given on that account. The quality of the wheat crop was, however, excellent and helped to make good the deficiency.

Areas irrigated. &c.

5. The areas irrigated and matured by works of all kinds compare as follows with the corresponding figures for the previous triennium and for the year 1914-15 :—

Particulars	Average of the three years ending 1914-15		During 1914-15.	During 1915-16.
	Acres.	Acres.		
<i>Imperial and Provincial.</i>				
Area irrigated	8,050,455	8,410,886	8,237,836	
Area matured	7,667,893	8,067,258	7,805,703	
<i>Native States.</i>				
Area irrigated	556,300	543,155	616,925	
Area matured	552,637	510,507	613,284	

Under Imperial and Provincial the area irrigated shows a decrease of 182,000 acres as compared with the year 1914-15, which was a record one. The figures are, however, an improvement over the average of the previous triennium, the increase being due mainly to the development of irrigation on the Upper Chenab and Lower Bari Doab Canals.

Excluding the Triple Canals, however, the area irrigated during the year showed a drop of 38,290 acres as compared with the figures for the previous year, the inundation canals alone being responsible for about half of this shortage.

The shortage of 401,673* acres, as compared with 1914-15, in the area irrigated during kharif was due partly to the bumper rabi crop of 1915, which took so long to harvest that it interfered with early kharif sowings, and partly to the very unfavourable season caused by the failure of the monsoon. The prevalence of plague on the Western Jammu and Sirhind Canals also prevented sowings of early kharif. The decrease was naturally more marked on the inundation than on the perennial canals.

The rainfall in September and October encouraged the cultivators to put in extensive rabi sowings to make good the loss in the kharif; a large area sown by rainfall had later to be matured by the canals. The result was that the area irrigated showed an increase of 323,112 acres over the figures of the previous year.

Financial Results.

6. The financial results are based not on the areas irrigated in kharif 1915 and rabi 1916 but on the areas of rabi 1915 and kharif 1915, water dues on account of which were realized within the financial year (1915-16). The gross receipts from works of all kinds compare as follows with the figures for

*Includes area irrigated in Native States.

the year 1914-15 and the two previous triennial periods ending 1911-12 and 1914-15 :—

Particulars.	AVERAGE OF THE THREE YEARS ENDING		During 1914-15.	During 1915-16.
	1911-12.	1914-15.		
	Rs.	Rs.	Rs.	Rs.
<i>Imperial and Provincial.</i>				
Major Works	2,13,69,361	3,40,31,764	3,45,62,445	3,45,89,804
Minor Works	17,47,219	18,57,540	19,51,230	18,86,557
Total	2,31,16,580	3,58,89,304	3,65,13,675	3,64,76,361
<i>Native States.</i>				
Major Works	17,17,265	25,21,876	22,85,777	24,88,303
Minor Works ,	23	8	..	1
Total	17,17,288	25,21,884	22,85,777	24,88,304

On the Major Works the gross revenue was the second largest on record, the highest being the year 1913-14. This very satisfactory result was due to the record rate of 1915, the revenue on which was collected during the year under review.

The working expenses for the year were unusually high, and compare as below with the similar figures of the annual averages of the two previous triennial periods and of the year 1914-15 :—

Particulars.	TRIENNIAL PERIOD ENDING		During 1914-15	During 1915-16.
	1911-12.	1914-15.		
	Rs.	Rs.	Rs.	Rs.
<i>Imperial and Provincial.</i>				
Major Works	80,25,908	80,39,131	93,21,449	1,00,31,510
Minor Works	10,43,544	9,51,001	9,77,821	9,47,959
Total	90,69,452	89,90,132	1,03,09,270	1,18,79,475
<i>Native States.</i>				
Major Works	7,38,757	9,11,511	8,18,581	9,21,201
Minor Works	4,084	6,951	3,703	4,764
Total	7,42,841	9,18,462	8,22,284	9,25,965

Much of the increase was incurred on the improvement of the right bank river defence work at Khanki on the Lower Chenab Canal, special repairs and staunching of banks on the Upper Chenab and Lower Bari Doab Canals, the up-keep of the Upper Jhelum Canal which was open for irrigation during the year, and on torrent-training works on the Sirhind Canal.

The net revenue for the year compares as follows with that of previous periods :—

Particulars.	TRIENNIAL PERIOD ENDING		During 1914-15.	During 1915-16.
	1911-12.	1914-15.		
	Rs.	Rs.	Rs.	Rs.
<i>Imperial and Provincial.</i>				
Major Works	1,62,83,866	2,50,92,638	2,52,37,996	2,36,58,238
Percentage on Capital	14.19	15.49	14.70	19.90
Minor Works	7,03,675	9,06,539	9,73,429	9,38,593
Total	1,69,87,041	2,59,99,172	2,62,11,425	2,45,96,836
<i>Native States.</i>				
Major Works	9,78,508	16,10,365	14,87,196	15,64,102
Percentage on Capital	8.40	10.49	9.52	10.12
Minor Works	— 4,041	— 6,943	— 3,703	— 4,773
Total	9,74,467	16,03,422	14,83,493	15,59,339

Compared with 1914-15 and the triennial period ending 1914-15 the net revenue showed a falling off due partly to the decrease in the kharif irrigation already explained and partly to the increased expenditure under working expenses. Excluding the figures for the Triple Canals, the net revenue earned by the Major Irrigation Works amounted to Rs. 2,39,08,167, which gives 20 per cent on the capital invested (Rs. 11,90,06,780). The interest charges for the year amounted to Rs. 72,47,023, and the net profit after paying interest charges is Rs. 1,66,21,265 or 7.56 per cent. on the total capital outlay.

The percentage of net revenue on capital outlay on the principal canals was as follows :—

Canal.	Excluding interest charges.	Including interest charges.
Western Jumna	9.04	5.73
Sirhind	7.78	4.47
Upper Bari Doab	15.29	11.97
Lower Bari Doab	— 0.46	— 3.73
Upper Chenab	0.53	— 2.79
Lower Chenab	39.78	36.40
Upper Jhelum	— 0.79	— 4.12
Lower Jhelum	20.70	17.37
Upper Sutlej Inundation Canals	18.50	15.23
Sidhnai	51.55	48.18
Indus Inundation Canals	— 0.14	— 3.44

As usual the Upper Bari Doab Canal, the Lower Chenab Canal, the Lower Jhelum Canal, the Sidhnai Canal and the Upper Sutlej Inundation Canals continued to show excellent results. But it should not be forgotten that the high percentages on colony canals are due to the fact that they

get a book credit for most of the land revenue and "malikana" in addition to the ordinary water rates. The disappointing results on the Indus Inundation Canals are mainly due to the fact that the heads of these canals have to be changed frequently and require heavy expenditure to maintain.

The working of the Triple Canals (Upper Jhelum, Upper Chenab and Lower Bari Doab) continued to show a deficit. Irrigation on this system has developed more slowly than was anticipated in the project owing to the unforeseen delay in the opening of the Upper Jhelum Canal. That canal has now been opened and a rapid expansion of irrigation is confidently expected within the next few years.

General Remarks.

7. The estimated value of the crops raised on all canals for the year under review is Rs. 27,50,82,336 against Rs. 27,76,29,480 for the previous year. This gives an average of Rs. 32.4 per acre matured. It may be noted that this calculation is based on the prices given in the Season and Crop Report for 1915-16; these prices vary from year to year.

The length of channels in operation at the end of March 1916 was 18,800 miles viz., 4,332 miles of canals and branches and 14,474 miles of distributaries. Of these 128 miles of canal and branches and 144 miles of distributaries were opened during the year, mainly on the Triple Canal Project.

8. In the last year's review it was noticed that the Upper Chenab and Lower Bari Doab canals commenced irrigating in 1912-13 and 1913-14, respectively. This year the Upper Jhelum Canal, the final link of the Triple Canal Project, was opened for irrigation on the 7th October 1915. Thus the year under review saw the completion of the great Triple Project, and the opening ceremony was performed at Mangla, the head-works of the Upper Jhelum Canal, on the 9th December 1915, by His Excellency Lord Hardinge of Penhurst, late Viceroy and Governor-General of India.

The completion of the Triple Project marks a new era in the history of the Punjab Irrigation, a history which, the Lieutenant Governor ventures to claim, is without parallel in any country for boldness of conception, success in execution, magnitude of results, and above all for the number of great Engineers whose technical skill, practical ability and devotion to duty have overcome all obstacles and combined to produce the 9 million acres of irrigation which is the most solid basis of the prosperity of the Punjab of to-day.

9. The general dislocation in the trade of the world which followed the outbreak of the war affected the agricultural conditions of the Punjab as of other parts of India. Owing to a drop in the export of cotton very low prices were realised for the crop of 1914, and this caused the area under that crop to fall from 1,069,676 acres in 1914 to 473,193 acres in 1915, i.e., by 56 per cent. This large decrease in cotton was partially compensated for by increase in maize, jowar and *chari*, and the high prices of food-grains generally compensated for the loss under cotton and caused an expansion of the area under wheat from 2,943,655 acres in 1914 to 3,041,248 in 1915.

10. In order to supplement the winter supplies of the Jhelum River for the use of the Triple and other canals, a project estimate for the construction of a barrage on the Woolar Lake Outfall was prepared by Mr. R. E. Purves, O.I.E., late Chief Engineer, Irrigation Works, Punjab. It is now under consideration by the Government of India.

Another scheme to conserve the supplies of the Jhelum River is the construction of a storage reservoir on the Kahan Torrent near Rohtas, rainfall and other statistics for which are being collected, but the project, judging by the data so far collected, is not a promising one.

11. The supply of the Lower Bari Doab Canal having been satisfactorily arranged for by the transference of the surplus waters of the Jhelum through the Triple Canal Scheme, the waters of the Sutlej below its confluence with the Beas are available for the irrigation of the Sutlej Valley. Among other

schemes a project was prepared in 1913 for a weir 4 miles below the railway bridge at Ferozepore to serve two great canals. The right bank canal was to take up the irrigation now done by the Upper and Lower Sutlej Canals and provide new irrigation in the Nili Bar, while the left bank canal was to serve the areas now irrigated by the Bahawalpur Sutlej Inundation Canals and to command new areas in Ferozepore District and the Bikaner and Bahawalpur States. This project is now being modified in accordance with orders received from the Government of India, based on the recommendations of the Inspector-General of Irrigation who, last cold weather, made an extensive tour over the land covered by the left bank scheme. The Lieutenant-Governor hopes that the new project when worked out will be found acceptable both to the Bikaner and Bahawalpur States and form the basis of a final agreement.

12. The extension of irrigation in the arid and frequently famine-stricken districts of Hissar and Rohtak has been the aim of more than one project. The proposal to store the excess summer supply of the Jumna by a dam at Koch was held to be impracticable owing to the enormous cost of a dam at such an unfavourable site: whilst the alternative proposal to add to the supply in the Western Jumna Canal by means of a Sarda-Ganges Jumna Feeder from the United Provinces has come to nothing, as it is represented that the surplus water of the Sarda is required for use in the United Provinces. A third and more promising scheme is now being investigated, involving a dam about 300 feet high at Bhakra on the Sutlej River, some 40 miles above the site of the head-works of the Sirhind Canal. This project will probably entail a second weir on the Sutlej some miles below Phillaur and a considerable amount of remodelling of some of the existing channels of the Sirhind Canal, which will be linked up with the Sirsa Branch of the Western Jumna Canal with possible extensions to the Bikaner State and the unirrigated areas round about Sirsa. The Western Jumna Canal, being thus relieved by the addition of part of the Sirsa Branch to the Sirhind system, would be able to irrigate certain unirrigated tracts of Hissar and Rohtak, which are peculiarly liable to famine.

13. The large variations in the supply obtained from the Ravi by the Sidhnai Canal with the consequent high percentage of failed crops, and the insecurity of supply to the Multan series of inundation canals, led to the framing of the Haveli Project. The essential feature is a weir across the Chenab River just below its junction with the Jhelum with canals on either bank. The canal on the right bank would take up new irrigation in the dry part of the Jhang District across the Chenab, finally tailing into the Karam Inundation Canal. The left bank canal would irrigate some of the unirrigated part of the Jhang District at the tail of the Lower Chenab Canal. But the upper part of this canal is a feeder principally: the major part of its supply being passed into the Ravi above the Sidhnai Weir to be used in the Sidhnai Canal and in the small inundation canals from the Chenab in the Multan District into which it tails. One of the main advantages of the scheme is to make the Sidhnai Canal independent of Ravi water, and so free the Lower Bari Doab Canal from its present obligation to pass beyond Balloki certain supplies which could be much more profitably utilised close at hand in Montgomery than in the far distant Multan District.

Experience of conditions at Haveli, when the Triple Canals are working full, is required before it can be confidently said that the Sidhnai Canal will not require help occasionally from Ravi water in certain seasons, and the project is under further consideration.

14. During the year, owing to the lack of canal closures consequent on the very dry season, but little progress could be made with the lining of channels to limit loss by seepage and percolation. Financial stringency too precluded all works but those urgently necessary. Nevertheless, on the Lower Chenab Canal measures were taken for the prevention of water-logging by the drainage of the water-logged tract in the vicinity of the town of Hafizabad with most satisfactory results, and restored to cultivation about 7,000 acres of rice lands that have been swamps for many years. There is good reason to believe that

the improvement effected is permanent, and that the swamps will not recur even in years of very heavy rainfall; and the Lieutenant-Governor will be glad to see similar measures extended to other water-logged areas. Again, the Main Line Lower of the Upper Bari Doab Canal was lined with cement plaster.

15. The posts of Chief Engineer were held during the year under review by—

	<i>From</i>	<i>To</i>
Mr. F. E. Gwyther ...	1st April 1915	16th September 1915.
Mr. T. R. J. Ward ...	1st April 1915	31st March 1916.
Mr. F. C. Rose ...	17th September 1915	3rd March 1916.
Mr. W. F. Holms ...	4th March 1916	31st March 1916.

Mr. Rose has been promoted to the post of Secretary to the Government of India in the Public Works Department after a service of 30 years in the Punjab, during which his technical skill, administrative capacity, sound judgment and tactful methods of dealing with men and measures accomplished much for the development of the great irrigation system in the Province. Mr. Ward will also within a few weeks be leaving the Province which he has served so long and so well on promotion to the post of Inspector-General of Irrigation in India, and the Lieutenant-Governor desires to place on record his appreciation of Mr. Ward's brilliant talents as an Irrigation Engineer which have helped to solve some of the most difficult problems of hydraulic enterprise and have won for him a reputation in his profession that is not confined to the Indian Empire.

The administration of the Province cannot but be the poorer for the loss of two such distinguished officers, but the Lieutenant-Governor finds some satisfaction in the fact that, though called away to fill the two highest offices in the Public Works Department, their experience and ability will still be available in the solution of the many great questions of canal irrigation which still await decision in the Punjab.

16. In conclusion the Lieutenant-Governor desires to thank the officers of the Department as a body for their single-minded devotion to duty during a year of unusual strain, and to congratulate them on the signal success of their efforts towards maintaining the prosperity of the Province in conditions of exceptional difficulty.

By order of His Honour the Lieutenant-Governor,

W. F. HOLMS,

Secretary to Government, Punjab.

ADMINISTRATION REPORT

OF THE

CANALS IN THE PUNJAB

FOR THE YEAR

1915-16.

GENERAL.

1. The direct receipts and expenditure of the Irrigation Department during the year were as follows :—

CLASS OF WORKS.		Direct Receipts.	DIRECT EXPENDITURE.		
			Capital.	Working expenses.	Total.
		Rs.	Rs.	Rs.	Rs.
Major Irrigation Works.	Imperial	2,37,97,171	46,61,222	1,63,43,170	1,50,07,392
	Contributions	82,221	58 854	5,08,854	5,67,708
Minor Irrigation Works.	Imperial	8,88,009	19	8,59,101	8,59,123
	Contributions	...	...	4,764	4,764
Provincial Canals	...	30,284	...	40,387	40,387
GRAND TOTAL		2,47,97,985	47,23,095	1,17,56,273	1,61,79,374
Average of the three years ending 1914-15.		2,55,74,433	1,01,36,585	98,05,827	1,99,42,412

*Includes "refunds of revenue."

2. The indirect revenue credited to the canals on account of Enhanced Land Revenue, etc., amounted to Rs. 1,17,60,597.
 Indirect Revenue. The average credit on this account of the three previous years amounts to Rs. 1,03,80,159.

3. The following table shows the areas irrigated by the several canals in 1915-16 as compared with the averages of the previous triennium :—

Names of canals.					Average of the three years ending 1914-15.	1915-16.
					Acres.	Acres.
<i>Major Irrigation Works.</i>						
Western Jumna Canal	...	Imperial	...	...	755,518	761,334
		Patiala State	...	...	70,255	63,749
Sirhind Canal	...	Imperial	...	...	893,812	927,059
		Patiala, Nabha and Jind States	...	...	478,685	580,008
Upper Bari Doab Canal	...	...	...	...	1,161,947	1,145,234
Lower Bari Doab Canal	...	...	...	...	131,391	253,294
Upper Chenab Canal	...	...	...	...	164,051	325,062
Lower Chenab Canal	...	...	...	...	2,266,005	2,234,079
Lower Jhelum Canal	...	...	...	...	816,460	834,176
Upper Sutlej Canals	...	...	...	...	353,066	272,746
Sidhnai Canal	...	...	...	...	278,544	270,150
Indus Canals	...	...	...	...	239,595	235,641
Total Major Irrigation Works.		Imperial	...	...	7,060,389	7,138,775
		Native States	...	...	548,940	643,757
<i>Minor Irrigation Works.</i>						
Shahpur Inundation Canals	...	Imperial	...	...	43,481	26,759
		Provincial	...	...	31,011	18,894
Ghaggar Inundation Canals	...	Imperial	...	...	26,156	22,006
		Bikaner State	...	...	7,360	3,168
Lower Sutlej Inundation Canals (including Hajiwal Canal)					301,333	283,572
Chenab Inundation Canals					200,130	170,485
Muzaffargarh Inundation Canals					379,916	377,395
Ravi Inundation Canals (Provincial)					17,022	...
Total Minor Irrigation Works.		Imperial	...	...	851,036	880,217
		Provincial	...	...	48,033	18,894
		Native State	...	...	7,360	3,168
Total Major and Minor Irrigation Works.		Imperial	...	...	8,011,425	8,218,992
		Provincial	...	...	48,033	18,894
		Native States	...	...	556,300	646,925
GRAND TOTAL					8,615,758	8884,811

*Average of two years only.

Financial Results.

4. The canals in the Punjab show the following results for 1915-16 :—

I.—CANALS IN OPERATION CLASSED AS PRODUCTIVE.

Major Works.

		Rs.
Capital expenditure during the year.	Direct charges ...	46,64,222
	Indirect charges ..	1,56,167
	Total ...	48,20,389
The capital invested to end of 1915-16 amounted to ...		21,69,51,484
Income from all sources <i>less</i> refunds (Rs. 7,608) ...		3,45,89,804
Working expenses <i>less</i> refunds (Rs. 7,608) ...		1,09,31,516
Balance excess revenue being 10·90 per cent. on Rs. 21,69,51,484... ..		2,36,58,288
<i>Interest—</i>		

	Rs.
Total Direct outlay to 31st March 1916 ...	21,07,41,711
<i>Less</i> half outlay during 1915-16 ...	23,32,111
Mean Capital at charge ...	20,84,09,600
Interest on Rs. 20,84,09,600 at 3·4725 per cent. . .	72,37,023
Net profit after paying interest in 1915-16 ...	1,64,21,265
Ditto ditto 1914-15 ...	1,94,82,697
Ditto ditto 1913-14 ...	2,05,01,885

The earnings of the "9—Major Works" are shown in line 24 of the statement at pages 4 and 5.

II.—IMPERIAL CANALS, MINOR WORKS NOT CLASSED AS PRODUCTIVE.

No capital outlay was incurred during the year on those canals for which Capital and Revenue Accounts are kept, *viz.*, Shahpur Imperial and Ghaggar Canals, except Rs. 19 incurred on the Ghaggar Canals. The total expenditure on such canals to end of year 1915-16 was, therefore, Rs. 5,92,043—

	Rs.
The income from all sources <i>less</i> refunds (Rs. 391) amounted to ...	18,48,928
Working expenses <i>less</i> refunds (Rs. 391) ...	9,04,623
Balance profit in 1915-16 ...	9,44,305
Ditto 1914-15 ...	9,47,214
Ditto 1913-14 ...	9,07,411

The financial results of each Minor Work are shown in the body of the report.

III.—PROVINCIAL CANALS.

There are only two Provincial Canals in operation, *viz.*, the Shahpur Provincial Canals and the Ravi Inundation Canals.

	Rs.
The income from all sources <i>less</i> refunds (<i>nil</i>) amounted to ...	37,629
Working expenses <i>less</i> refunds (<i>nil</i>) ...	43,336
Balance profit in 1915-16 ...	—5,707
Ditto 1914-15 ...	26,215
Ditto 1913-14 ...	35,054

PARTICULARS.	Serial No.	CANALS IN OPERATION CLASSED AS PRODUCTIVE					
		Western Jumna Canal (including Firoz Branch).	Sirhind Canal (Imperial).	Upper Bari Doab Canal.	Lower Bari Doab Canal.	Upper Chenab Canal.	Lower Chenab Canal.
		3	4	5	6	7	8
1	2						
I.—Capital (direct and indirect) outlay to end of		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1914-15 ...	1	1,76,76,876	2,51,92,414	2,15,23,315	2,01,51,011	3,32,57,562	3,17,00,058
1915-16 ...	2	1,76,92,535	2,55,56,558	2,18,72,497	2,10,81,992	3,45,01,393	3,17,96,780
II.—Income realized during the year—							
Direct, viz., water rent and miscellaneous receipts.							
1914-15 ...	3	30,15,615	38,91,584	39,40,701	4,91,360	6,21,064	84,95,508
1915-16 ...	4	27,75,881	31,37,789	41,02,676	4,32,511	9,56,236	84,47,760
Indirect, viz., land revenue due to Irrigation Works, including water-advantage rate.							
1914-15 ...	5	2,03,125	18,351	4,59,948	47,128	2,01,762	70,90,846
1915-16 ...	6	2,30,990	29,551	6,16,293	1,20,986	61,077	74,74,180
Total Direct and Indirect							
1914-15 ...	7	32,24,740	39,12,938	43,99,649	5,38,488	6,25,826	1,55,86,354
1915-16 ...	8	30,00,351	32,27,319	47,18,960	5,53,497	10,17,333	1,59,22,210
III.—Charges (direct and indirect) for the year—							
Maintenance, including Establishment.							
1914-15 ...	9	13,76,175	11,98,218	14,61,553	3,70,614	7,75,292	23,32,560
1915-16 ...	10	14,05,414	12,38,859	12,72,565	6,50,985	8,33,806	32,71,093
Interest on Capital outlay							
1914-15 ...	11	5,58,998	8,18,057	7,26,137	6,67,318	11,05,183	10,73,969
1915-16 ...	12	5,83,986	6,11,273	7,27,555	7,72,171	11,40,872	10,76,007
Total							
1914-15 ...	13	19,67,163	20,46,500	21,87,690	10,37,902	18,80,475	34,06,538
1915-16 ...	14	19,91,400	20,83,131	21,00,420	13,53,156	19,80,650	43,48,000
V.—Profit and Loss—							
Amount							
1914-15 ...	15	12,57,575	18,60,638	21,11,959	—4,99,474	—10,51,549	1,21,79,816
1915-16 ...	16	10,14,951	11,44,209	26,18,519	—7,39,639	—9,63,314	1,15,74,210
(a) Including Interest on Capital outlay.							
Percentage on Capital outlay.							
1914-15 ...	17	7.11	7.22	10.27	—2.47	—3.17	7.542
1915-16 ...	18	5.73	4.47	11.97	—3.79	—2.79	36.40
On Direct income							
Amount							
1914-15 ...	19	16,37,410	26,96,311	21,55,118	1,20,716	—1,51,278	61,62,939
1915-16 ...	20	13,09,917	16,98,931	27,30,111	—2,18,474	—1,52,448	51,75,767
Percentage on Capital outlay.							
1914-15 ...	21	9.20	10.53	11.55	0.55	—0.15	19.44
1915-16 ...	22	7.74	7.43	12.49	—1.04	0.35	16.28
On total income, Direct and Indirect.							
Amount							
1914-15 ...	23	18,40,565	27,14,693	29,38,096	1,67,814	10,534	1,82,53,755
1915-16 ...	24	16,00,937	19,88,482	33,16,401	—87,438	1,33,523	1,26,50,247
Percentage on Capital outlay.							
1914-15 ...	25	10.44	10.65	13.65	0.83	0.15	41.81
1915-16 ...	26	9.04	7.78	15.29	—0.48	0.53	39.78

* Figures differ from last year's report owing to the transfer of the Upper Jumna Canal from

MAJOR WORKS.					Total Productive.	IMPERIAL CANALS MINOR WORKS, NOT CLASSED AS PRODUCTIVE.		PROVINCIAL CANALS.		Serial No.
Upper Jhelum Canal.	Lower Jhelum Canal.	Upper Sulej (including Lower Sohag and Para).	Sidhmal Canal.	Indus Inundation Canals.		Works for which Capital and Revenue Accounts are kept.	Works for which only Revenue Accounts are kept.	Shahpur Provincial Canals.	Ravi Inundation Canals.	
9	10	11	12	13	14	15	16	17	18	19
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
4,04,17,370	1,60,51,402	18,06,779	13,41,027	23,22,382	21,21,31,095	5,92,021	...	...	...	1
4,23,61,119	1,59,66,762	18,18,381	13,30,911	23,73,306	21,60,51,484	5,92,043	...	...	...	2
...	28,02,582	3,93,913	5,42,511	1,76,281	2,43,87,682	1,05,731	8,17,111	49,600	1,379	3
6,234	26,49,440	4,70,016	6,23,450	1,56,918	2,37,97,471	94,074	7,93,375	29,902	222	4
...	15,62,392	2,12,987	1,30,000	2,49,221	1,01,71,753	18,923	9,33,807	9,541	11,149	5
...	14,72,343	2,67,077	2,09,300	2,70,227	1,07,02,344	15,107	9,47,312	0,457	888	6
...	4,01,474	6,11,933	6,72,511	4,21,512	3,45,62,415	1,21,054	17,55,019	69,160	12,624	7
6,234	41,21,753	7,46,103	8,32,779	4,97,173	3,45,90,501	1,09,741	17,32,187	36,359	1,370	8
...	8,67,219	3,49,374	1,79,230	4,11,151	93,24,410	81,396	8,52,053	42,093	2,330	9
3,42,150	8,17,559	4,03,705	1,45,692	4,11,584	1,02,31,516	68,900	8,15,723	40,953	2,363	10
13,23,571	5,44,513	59,373	45,197	80,032	70,73,873	...	...	...	...	11
14,11,000	5,40,061	59,435	44,039	87,013	72,37,023	...	...	...	...	12
13,23,571	14,32,062	4,07,919	2,03,427	5,10,183	1,41,01,322	81,305	8,52,052	42,083	2,380	13
14,11,000	13,65,620	4,69,146	1,91,130	5,89,497	1,81,05,630	88,900	8,15,723	40,953	2,383	14
-13,23,571	29,32,412	2,03,954	4,09,117	-84,991	1,91,60,123	...	...	...	...	15
-17,46,025	27,63,263	2,76,957	6,41,340	-1,02,322	1,61,21,205	...	...	...	...	16
-3-27	13-39	11-20	36-13	-3-00	8-56	...	...	...	...	17
-4-12	17-37	16-23	45-18	-3-11	7-56	...	...	...	...	18
...	19,16,093	50,570	3,84,314	-2,37,850	1,50,67,473	24,425	-34,941	6,526	-1,001	19
-3,35,016	18,31,551	69,333	4,76,818	-2,74,656	1,29,65,915	5,734	-2,98,192	-11,051	-2,001	20
...	12-01	2-70	25-43	-3-43	7-10	4-12	..	...	...	21
0-70	11-47	8-61	35-22	-8-56	5-93	0-97	...	...	...	22
...	74,77,255	2,63,557	5,14,014	11,351	2,52,37,906	43,349	9,03,869	16,067	10,148	23
-3,36,910	33,03,924	3,35,395	0,66,167	-4,400	2,30,53,284	20,841	9,23,164	-4,594	-1,113	24
...	21-80	13-59	38-01	0-40	11-89	7-32	...	...	...	25
0-70	20-70	18-50	51-55	-0-14	10-80	3-62	...	...	...	26

works under "construction" to "canals in operation," as being opened in December 1916.

Major Irrigation Works.

WESTERN JUMNA CANAL.

1. The expenditure (direct and indirect) amounting to Rs. 15,659 was wholly "imperial" and was incurred mainly on new rest-house at Anchra; subordinates' rest-houses at Tajewala and Jainti and a new dispensary at Dadapur.

2. The expenditure amounted to Rs. 1,40,182 (Rs. 1,18,508 under "imperial" and Rs. 21,674 under "contribution") and was incurred in numerous small works for increasing the efficiency of the canal and in improvements to buildings.

3. Rupees 630,839 were expended (Rs. 6,02,861 under "imperial" and Rs. 20,978 under "contribution"). In addition to this Rs. 11,890 and Rs. 13,394 were also spent by the Patiala and Jind States, respectively, on the maintenance of their distributaries. Apart from the ordinary repairs and maintenance of channels and buildings, numerous works were carried out for increasing the efficiency of the canal and improving the banks of the channels. The silt berms which had been successfully formed by the basket-work-spurs at Dadapur, were protected by pitching at intervals, and the large silting reaches above Indri were maintained and worked during the year; also as those in the Main Branch and the Hansi Branch. A large sum was also spent on clearance of drains recently taken over from the Civil Department.

4. (a) *Kharif*.—The monsoon was very poor and the existing supply of fodder insufficient so that a great scarcity of fodder set in early in the crop in dry districts such as Rohtak and Hissar. Throughout the season up to half-way through September the monsoon was distinctly below normal. The canal was in flow for 165 days out of 183 days and was closed for 18 days only, which included 7 days for opening and 7 days for closing Badarpur silting reach. The demand was fairly keen throughout and supply sufficient. There were no high floods in the river, the highest gauge registering 25.0 feet at Paunta on the 17th August against the maximum recorded flood of 38.5 on the 14th August 1903.

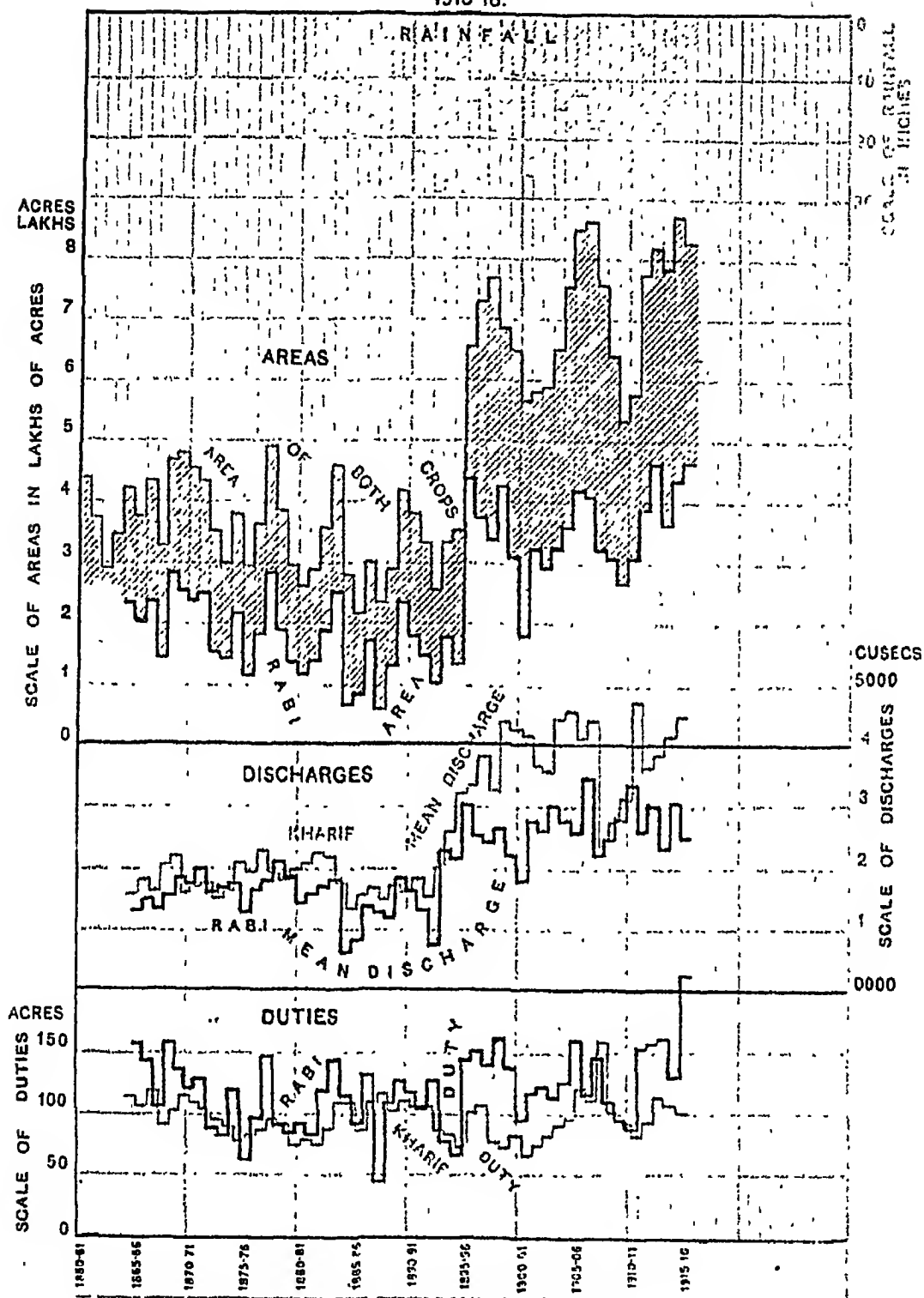
(b) *Rabi*.—There was good rain in the last fortnight of September which induced a large amount of rabi sowings, the sowings originally put down as *barani* largely came under irrigation later on owing to the failure of the winter rains. The demand was very keen but the supply in the river was the lowest on record. The average supply in January was 300 cusecs below the average for the last 15 years, 500 cusecs below it in February, and 1,600 cusecs below it in March, and it was with great difficulty that the crop which was the second largest on record was matured at all. The canal could not be closed at all during the season and remained in flow for 183 days. The lowest supply in the river occurred on 30th March 1916 and was 2,167 cusecs; the lowest ever recorded.

(c) *Rainfall*.—The following table compares the rainfall during the year with that of the previous year:—

Station.	RAINFALL IN INCHES IN	
	1914-15.	1915-16.
Paunta	92.5	60.0
Tajewala	80.6	36.4
Indri	41.8	20.1
Munak	27.0	11.1
Delhi	31.2	15.5
Karnal	36.4	21.0
Dadapur	58.86	24.6
Hissar	18.65	5.7
Rohtak	22.00	6.5

// WESTERN JUMNA CANAL.

WORKING RECORD.
1916 16.



N. B.—The intercepts in the red area show the Kharif sowsage each year.

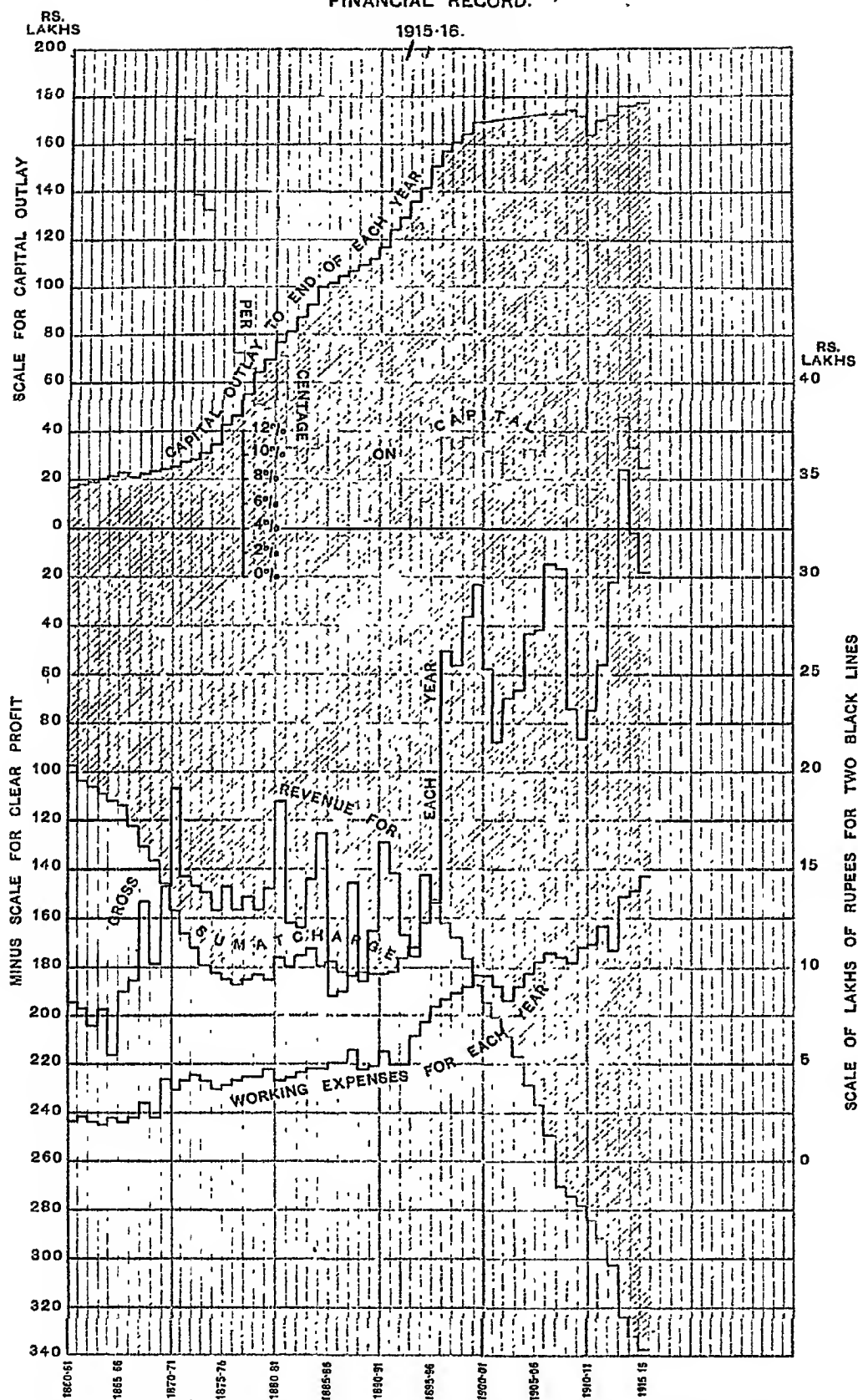
The areas shown include those done in Patiala State on Sirsa Branch

The discharges are as measured at canal head, and are averages utilised for the whole of each crop.

The duties are derived from the above areas and discharges.

WESTERN JUMNA CANAL.

FINANCIAL RECORD.



N. B.—This diagram does not include figures for Patiala State on Sirsa Branch; it is "Imperial" only.

The intercepts in the blue area are measures of the accumulated clear profits of the scheme; and if measured on the minus scale the readings are clear profits after reimbursing the whole of the capital expenditure.

This canal was taken over in the early half of the 19th century without the expenditure of any capital; there has therefore never been any arrears of interest, and the sum at charge has never been greater than the capital. In 1900-01, it will be seen that the whole capital had been repaid, and about 194 lakhs in addition as clear gain.

No interest on this clear profit has been allowed for, so that the gain is more than shown.

The intercepts between the black lines show the net revenue each year.

The sudden rise in 1896-97 of gross receipts was due to a famine year, but has been continued since owing to large extensions.

5. The following table compares the irrigation effected during the year with the averages of the two previous triennia :—

Crop.	AVERAGE FOR THE 3 YEARS ENDING.		Area irrigated during 1915-16.
	1911-12.	1914-15.	
Kharif	308,782	400,627	361,275
Rabi	325,186	425,146	463,808
Total	633,968	825,773	825,083

The area irrigated shows a distinct improvement over previous years, and this was due to the recent improvements in channels and scientific designing of them. The decrease in the *kharif* was due to the fact that the *zamindars* were advised by the Civil Department not to put down cotton as there would be difficulty in disposing of it owing to the general dislocation in trade which followed the outbreak of the war. The area under cotton was, therefore, one lakh acres less than usual. The *rabi* of 1914-15 was a bumper one having only been exceeded on two previous occasions. After reaping it the *zamindars* did not trouble much about putting down *said* *rabi* crops. There was a heavy death roll from plague and in some areas cholera was prevalent. Had it not been for this the total area of irrigation of the year would probably have far exceeded previous records. The *rabi* irrigation, in spite of extraordinarily low supply in the river and total failure of the winter rains, was the second highest on record ; being 463,808 acres against the recorded maximum of 471,533 acres in 1912-13.

6. The receipts amounted to Rs. 52,266 and maintenance charges to Rs. 5,153 showing a nominal profit of Rs. 47,113 against Rs. 59,244 in 1914-15 and Rs. 56,410 in 1913-14. The navigation receipts are almost wholly due to the rafting traffic from Tajewala to Jagadhri Railway Station. Navigation in the Delhi and Hansi Branch, except for rafts, was closed from April 1915 and the result was very beneficial to the canal in general by permitting of better design of channels. No boats are now plying for hire on the canal.

7. *Imperial*.—The gross revenue collected amounted to Rs. 30,06,351 which is less by Rs. 2,28,775 than the average for the triennium ending 1914-15. The decrease is due to decrease in *kharif* irrigation.

The working expenses amounted to Rs. 14,05,414, which is Rs. 1,09,614 more than the average of the previous triennium. The increase was due to heavy expenditure on silting reaches and improvements to banks of channels and clearance of drains recently taken over from the Civil Department.

The net revenue amounted to Rs. 16,00,937 against Rs. 19,39,327, the average of the previous triennium and Rs. 18,46,565 of the previous year.

Contribution.—The net revenue received by the Patiala State on their channels on the Sirsa Branch amounted to Rs. 148,296 or 12.77 per cent. on the capital cost invested, against an average of Rs. 1,53,966 or 13.38 per cent. for the triennium ending 1914-15, and Rs. 1,34,437 or 11.58 per cent. for the year 1914-15.

8. (a) *Agricultural and other conditions of the year.*—The canal was in flow for 348 days and remained closed during the *kharif* for 18 days only. The rainfall was insufficient and considerably below normal. The monsoon was a very poor one and the winter rains failed almost entirely. The area remitted amounted to 6,184 acres during *kharif* and 12,630 acres during *rabi*, giving percentages of 1.71 and 2.72 acres, respectively, on the area irrigated, against 4,168 acres for *kharif* and 1,188 acres for *rabi* giving percentages of 0.95 and 0.27, respectively, in the previous year. The *rabi* crop was poor in quality. The year from an irrigation point of view was not favourable owing to deficiency of rain and low supply in the river.

Throughout the year water was given free of charge to village tanks as usual and this benefit is greatly appreciated in rainless areas such as Sirsa, Hissar and Rohtak. This year the benefit was specially felt as most village tanks dried up, completely, early in March, owing to the failure of the winter rains, and there would have been no water for the cattle or for domestic purposes in general if it had not been supplied by the canal and the mortality among cattle would have been great. In most villages the *zamindars* risked damage to their crops so as to get water for their tanks. In the dry districts of Sirsa, Hissar and Rohtak and also in Jind and Patiala States there was great scarcity of fodder from January onwards, and it was imported into these districts by rail at Government expense.

The area thrown out of cultivation by swamping along the lower reaches of the Main Line is being gradually improved by the costly silting reaches which have now been formed to protect it and a great deal of the Indri silting reach is now under crop, and the crops extend right up to its outer bank. The benefit from the canal to the land alongside the upper reaches of the Main Line is very great and enables several thousand acres of sugarcane to be grown annually on percolation water for which no water-rate is charged.

The value of crops assessed to water-rates on the canal amounted to Rs. 3,17,84,049 which shows that the canal is a very valuable asset to the country.

(b) *Nature and scope of contemplated new works and progress made on the preparation of new projects.*—(i) The proposals for a high dam across the Jumna at Koch were finally abandoned by the Government of India as the rock was not of sufficiently good quality.

(ii) A fresh design and estimate for a new level-crossing of the Somb Torrent at Dadupur amounting to about 15 lakhs of rupees were submitted to the Government of India. The site selected was a different one from former proposals. The Government of India have since returned the estimate with instructions to recast the same.

(iii) Proposals and estimates for remodelling the Headworks at Tajewala were under consideration.

(iv) Proposals for substituting Canal Minors for the direct water-courses near Tajewala were investigated.

(v) Proposals for dealing with the Closed Drainage Area of Karnal District were under consideration.

(vi) A project for substituting a *kharif* distributary for the present Lower Chautang Canal was under investigation.

(c) *Interesting facts relating either internally or externally to the canal.*—Capacity statements for the whole canal, which have been under consideration.

for the last three years, were finally accepted by the Chief Engineer, the Commissioner, Ambala Division, and the Chief Commissioner, Delhi Province. These statements, which place the area proposed to be irrigated annually on a percentage basis of the area commanded in various zones on the canal, should greatly improve the working of the canal.

Navigation on Delhi Branch and on Hansi Branch below Jind was abolished from the beginning of the year. This will enable the Delhi tail distributary and the Hissar distributary to be put in proper order and make them more suitable for irrigation requirements.

The question of garden irrigation in the neighbourhood of Delhi was taken up as excessive irrigation was causing insanitary results. In consultation with the Chief Commissioner, Delhi Province, the discharge allowed for the area in question was reduced to about one-half the amount formerly given.

The drainages within the canal area in the Karnal and Rohtak districts and Delhi Province were finally taken over from the District Boards in consultation with the Civil Department and will, in future, be maintained under the supervision of and at the expense of the canal.

A temporary Division was formed for six months to work up the projects for (a) Koeh Dam and (b) Remodelling works at Dadupur and Tajewala.

Special proposals and estimates were prepared which are now under consideration.

Steady progress was made in remodelling all channels into more scientific sections and in revising their capacities to the actual discharges required throughout.

Owing to the advice given to the *zamindars* that cotton would not pay owing to the war, an attempt was made to reintroduce indigo on the canal. The attempt was on a moderate scale but about 15,000 acres of indigo were expected. The seed obtained from Bengal, however, failed to germinate and consequently only a few thousand acres of it were put down and these were afterwards mostly re-sown with other crops. Formerly indigo was cultivated in Karnal and Delhi only and the *vats* are still in existence and it was intended to have them repaired and brought into use again. The experiment will, however probably not be proceeded with.

The war has stimulated the manufacture of saltpetre within the canal area, but this did not start till near the end of the year and was much handicapped by the extraordinary insufficiency of water for the time being.

Irrigation in Patiala State.—The irrigation in the Patiala State from the Sirsa Branch was 34,804 acres in *kharif* and 28,533 acres in *rabi* or a total of 63,337 acres exclusive of 304 acres remitted in *kharif* and 108 acres remitted in *rabi*. The average area assessed for the two previous triennia was 70,001 acres and 57,888 acres, respectively.

Irrigation in Jind State.—The supply which the Irrigation Branch has undertaken to allow the Jind State is 353 cusecs in order to irrigate an area of 60,000 acres in the year. The irrigation done, amounts to 57,857 acres or a decrease of 7,123 acres or 10.9 per cent. when compared with that of the previous triennium. The *kharif* area is 10,095 acres less than that of last year owing probably to less cotton being sown, but the *rabi* area is greater by 2,972 acres. The average areas irrigated during the two previous triennia ending 1911-12 and 1914-15 were 50,778 acres and 64,058 acres, respectively. Besides the area recorded above, the Jind State gets an average of 2,300 acres of irrigation from the Butana Branch which is assessed at the water-rate prescribed for British areas on the Western Jumna Canal. The maintenance, management and assessment connected with all Jind distributaries are in the hands of Jind State officials.

The following table shows the working of the Jind State distributaries as reported by the State :—

Particulars.				1911-12.	1912-13.	1913-14.	1914-15.	1915-16.
				Rs.	Rs.	Rs.	Rs.	Rs.
<i>Receipts.</i>								
Occupier's rate	...	...	...	2,61,232	2,60,491	2,84,720	2,83,998	2,62,054
Miscellaneous	...	...	...	2,121	5,022	5,350	5,053	5,678
Total	...	...	...	2,63,403	2,65,512	2,90,060	2,91,081	2,67,732
<i>Working expenses.</i>								
Establishment	...	...	...	6,513	9,414	7,561	7,817	7,337
Other expenses	...	...	...	25,003	21,096	27,258	28,365	31,776
Occupier's rate paid into British treasury	...	...	...	1,19,641	1,42,856	1,31,000	1,31,000	1,31,000
Total Working Expenses	...	...	...	1,51,250	1,76,766	1,65,819	1,67,182	1,70,173
Profit or loss	...	...	...	+1,12,153	+88,747	+1,24,251	+1,23,899	+97,559

The above account shows a profit of Rs. 97,559 against a profit of Rs. 1,26,899 in the previous year.

Irrigation in Bikaner State.—This canal has also to irrigate 460 acres annually in the Bikaner State from the tail of Hissar distributary. The areas actually irrigated amounted to 483 acres in *kharif* and 85 acres in *rabi* or a total of 568 acres against 421 acres in *kharif* and 517 acres in *rabi* of the previous year. The *rabi* area was short because of the difficulty in getting the supply down to the tail owing to the very keen demand.

Irrigation in the Kalsia State.—The irrigation in Kalsia State from Main Line of the canal was 696 acres in *kharif* and 779 acres in *rabi* or a total of 1,475 acres exclusive of 25 acres remitted in *kharif* and 18 acres remitted in *rabi*. The average area assessed for the last 3 years has been 743 acres in *kharif* and 889 acres in *rabi* or a total of 1,632 acres.

SIRHIND CANAL.

1. (a) *Imperial.*—The expenditure (direct and indirect) amounted to Rs. 61,114 and was incurred on completing the Capital Account. New Divisional Office at Rupar, the Girder Cart Bridge at Khatani (R. D. 166,460 Main Line,) and collecting materials for the bridges at Bul, R. D. 34,810 and Saholi R. D. 91,250 Abohar Branch.

Charges in England were also made on the Stoney Gates for the Rupar Undersluices and Lock Channel, but owing to the war the material did not arrive in time to enable erection to be done.

(b) *Contribution.*—The expenditure of Rs. 58,854 under this head represents mainly the share borne by the signatory states of the expenditure incurred on the headworks and Main Line.

2. (a) *Imperial.*—The expenditure amounted to Rs. 1,34,408 against Rs. 1,09,420 in 1914-15, and was incurred mainly on the completion of the wire ropeway over the weir at Rupar, building a new Telegraph Office at Maholi, additional accommodation for servants and stables at various rest-houses, improving distributary head regulators and raising sunken bridges. Altogether about 17 such works were carried out.

(b) *Contribution*.—The expenditure was Rs. 1,69,359, of which Rs. 1,39,314 represents seigniorage charges and the balance is the share of expenditure at the Headworks and on the Mian Line ; as also the cost of additions to some rest-houses and out houses at Dhaneta.

3. (a) *Imperial*.—The expenditure was Rs. 4,19,363 against Rs. 4,18,408 in 1914-15. The most important repair works carried out were—digging of the outfall channel, Siswan Torrent ; repairing spurs, Budki Torrent, concrete slab experiments at Rampore ; and raising and strengthening banks, silt clearance, etc., of several distributaries ; all the above being in addition to the ordinary maintenance and repairs of channels.

(b) *Contribution*.—The expenditure was Rs. 1,42,934 against Rs. 89,413 in the previous year, and represented the cost of the usual maintenance charges and a share of the expenditure on the Headworks and Main Line which was heavy, and accounts for much of the increase above.

4. (a) *Kharif*.—The canal was in flow for 171 days. The demand in the early part of the season was slack to moderate owing to the very heavy *barani* rabi of 1914-15 which had to be harvested. In July and August the demand was intensely keen owing to the failure of the monsoon and continued so till the middle of September when there was widespread, and general rain of fair intensity which reduced the demand.

The supply was ample.

(b) *Rabi*.—The canal was in flow throughout the season. Owing to late rain in September the river remained full and rotational turns did not begin till 1st November. The supply fell gradually and remained low throughout January, February and March. There were no winter rains and little snow on the lower ranges so that there was no rise in the river. The shortage of canal water was considerable, and as there was little or no rain to help, the failures on British Branches was 4.51 per cent. which was fairly good. This was, however, due to excessive irrigation as the area was the second best on record, second only to the rabi of 1911-12, and if the people had only been content with a fair amount of area the failures would not have been so heavy.

(c) *Rainfall*.—The mean rainfall of the year over the irrigated tract in each district is compared in the following statement with the average mean of 32 years :—

District.	Crops.	RAINFALL.		Percentage of actual to average of 32 years.
		1915-16.	Average of 32 years.	
Indiana	Kharif 1915	7.69	15.56	
	Rabi 1915-16	1.45	3.28	
	Total	9.14	18.84	48 %
Terozepore	Kharif 1915	3.89	11.48	
	Rabi 1915-16	1.39	2.19	
	Total	5.28	13.67	38 %
Native States	Kharif 1915	6.61	15.05	
	Rabi 1915-16	1.05	3.06	
	Total	7.66	18.11	42 %

It will be seen that the rainfall was much in defect everywhere. In the critical period, December and January, when rain was required to assist "Kor" waterings there was no rain whatsoever.

5. The following table compares the irrigation effected with the averages of the two previous triennia :—

Area irrigated.

Crop.	AVERAGE OF THREE YEARS ENDING.		1915-16.
	1911-12.	1914-15.	
	Acres.	Acres.	Acres.
<i>British Branches.</i>			
Kharif	205,491	337,234	292,862
Rabi	505,678	556,578	631,197
Total	711,169	893,812	927,059
<i>Native States Branches.</i>			
Kharif	122,533	185,659	209,062
Rabi	251,090	293,026	370,946
Total	376,623	478,685	580,008
<i>British and Native States Branches.</i>			
Kharif	328,024	522,195	501,924
Rabi	759,768	819,604	1,005,143
Total	1,087,792	1,372,497	1,507,067

The gross area for the year was the second best on record, the highest being in the year 1911-12 when 1,609,458 acres were irrigated followed by 1,486,782 acres in 1912-13. The area for the year is in excess of the average of either triennia.

Taking the crops separately, in *kharif* the area, in spite of the inauspicious start, eventually closed at 501,924 acres, the third highest on record, the *kharif* crop of 1914 being first with 555,208 acres and 1912 second with 521,959 acres. On British Branches alone there was a slight decrease compared with each of the previous four years and the good result was due to the Native States Branches which did the highest on record.

In *rabi* the total area was over a million acres, which only happened once before in 1911-12.

As compared with the figures of the previous year the *kharif* area was 9.6 per cent. short, whereas the *rabi* area was 38.15 per cent. more.

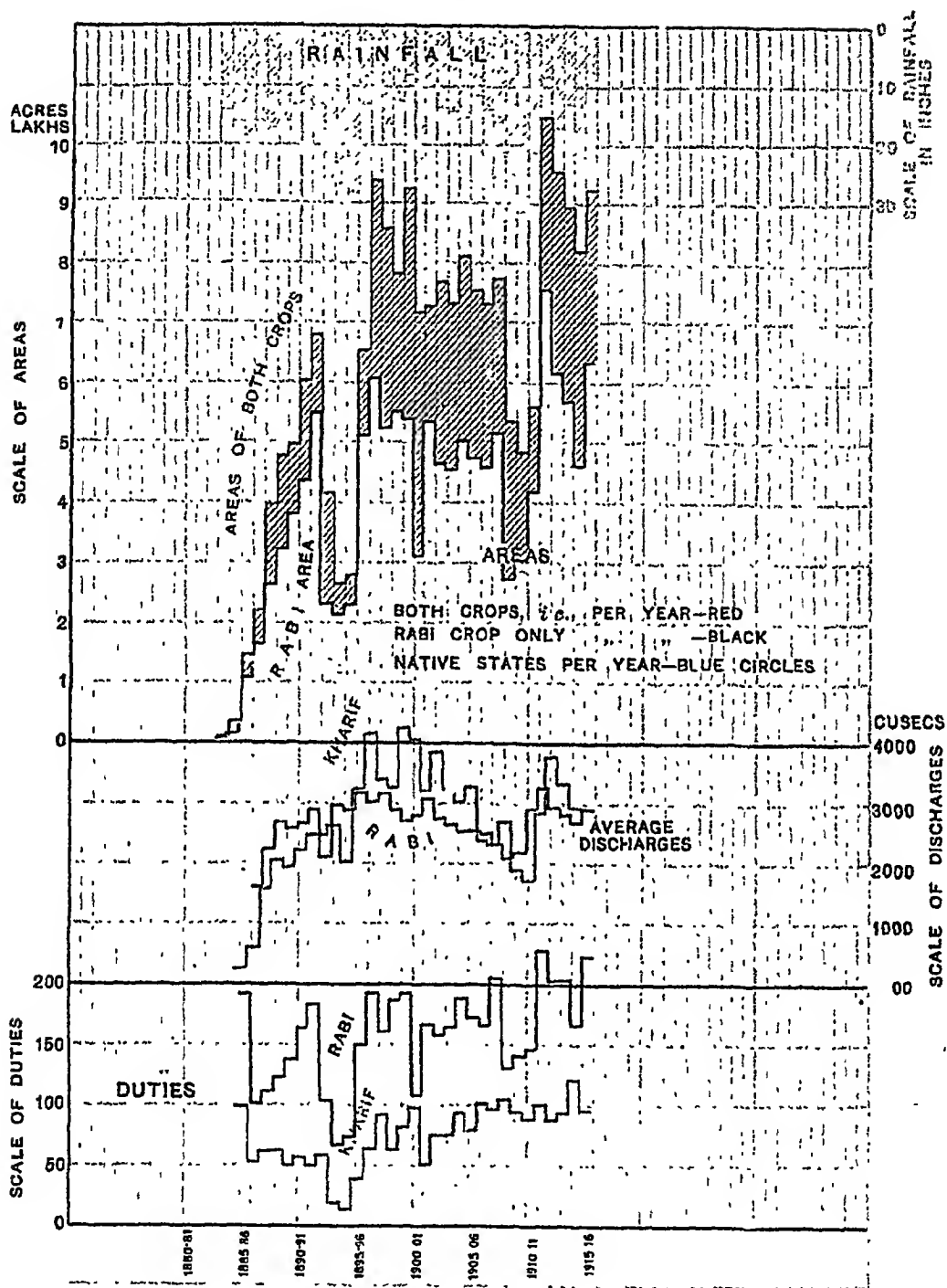
6. The details of traffic in tonnage and receipts is shown in this table :—

Navigation.

Particulars.		1914-15.	1915-16.
Tonnage carried	Mds.	35,470	31,249
Value of Tonnage... ..	Rs.	13,70,902	11,72,252
Toll receipts and raft dues	Rs.	19,085	17,030
Maintenance charges	Rs.	8,840	5,767
Number of passengers carried	No.	20,319	20605

SIRHIND CANAL—BRITISH.

WORKING RECORD.
1915-16



N. B.—The intercepts in the red area give the Kharif acreage each year.

The small areas of 1892 to 1896 were partly due to silt difficulties, but chiefly to heavy rain. The working is more or less unsteady always.

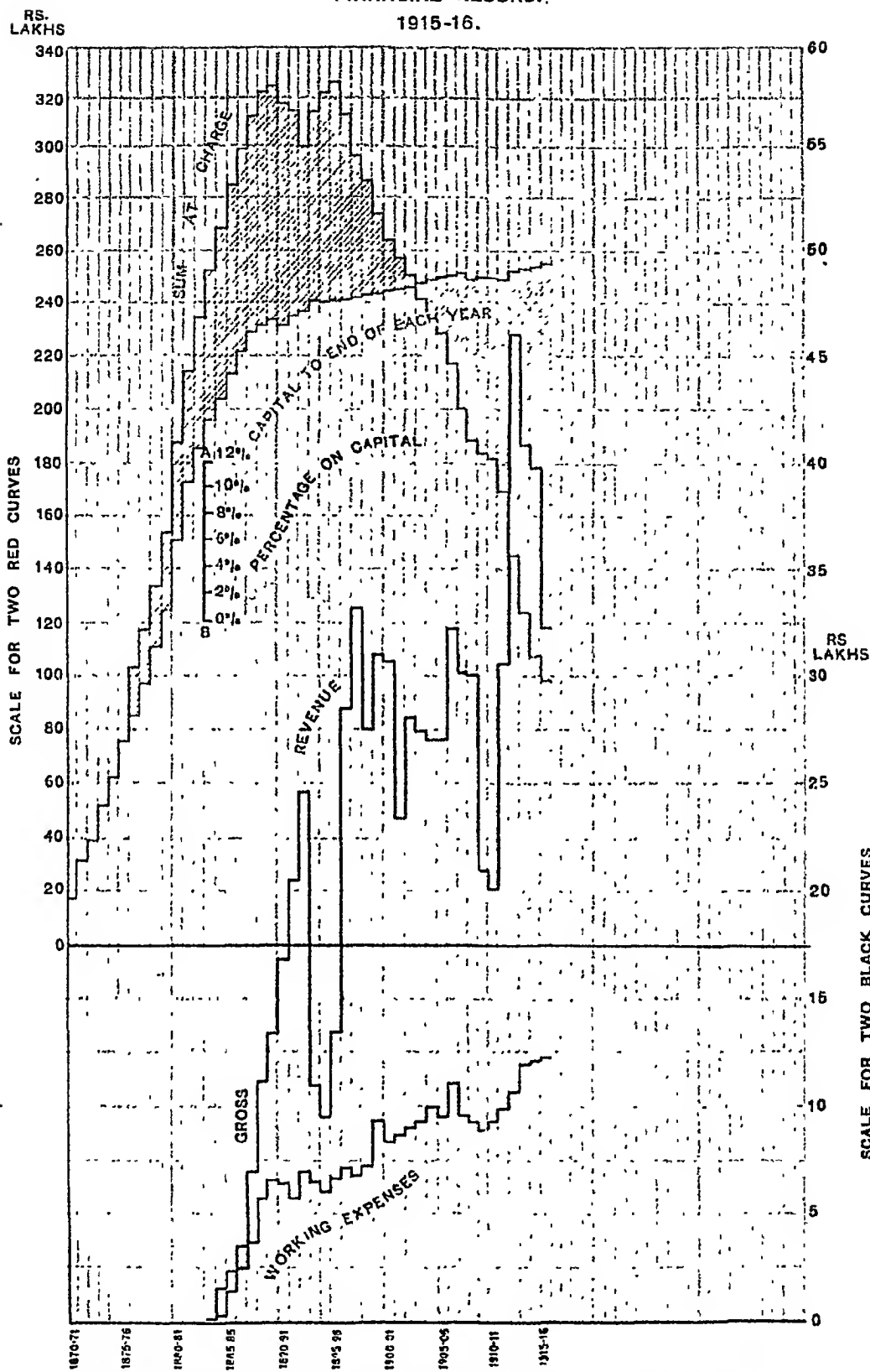
The discharges are measured in main line 26 miles from the head. Of the whole supply 36% goes to Native States, not included here; so that the discharges here shown are only 64% of the actual flow.

These States ought therefore to do areas equal to $\frac{3}{4}$ ths of those shown above. The actual areas done for both crops are shown for comparison by blue circle, and it will be seen that owing to less efficient management they have done less than half the British, instead of $\frac{3}{4}$ ths. In winter the whole river is taken in; in Kharif the supply is more than enough, but the demand is then always low.

SIRHIND CANAL—BRITISH.

FINANCIAL RECORD.

1915-16.



N. B.—The intercepts in the red area show arrears of interest which, added to the capital, give the sum at charge. Where the two red curves cross all such arrears were wiped off, and thereafter accumulated profits accrue, as measured by the intercepts in the blue area.

The scheme was begun about 1870 and opened in 1893-94. The lapse from prosperity shown in period 1893 to 1896 was partly due to silt troubles since overcome, and to exceptionally heavy rain.

The intercepts between the black curves give the net revenue.

No interest is charged on the arrears of interest, so the sum at charge is somewhat untrue.

There was a further reduction in maintenance charges this year and the net return higher than in either of the two preceding years, although the tonnage carried was less than in the previous year.

The net revenue earned on the British Branches amounted only to Rs. 19,88,482 equivalent to 7.78 per cent. on the capital invested. This compares unfavourably with the figures of the previous years and is due to—

(a) the very poor rabi area of 1914-15 (revenue of which was collected in 1915-16), which was the lowest since 1910-11;

(b) an uncollected balance of Rs. 1,35,496 out of which Patiala State was responsible for no less than Rs. 1,20,379.

The following table gives the amounts of occupiers' rates collected and balances uncollected :—

Year.	Collected.	Balances uncollected.
	Rs.	Rs.
1913-14	37,57,080	13,564
1914-15	35,02,132	28,908
1915-16	28,00,260	1,35,496

The working expenses were Rs. 12,38,553 being Rs. 40,615 more than in the previous year. This excess is due to heavy maintenance charges on torrent works, and to a small capital expenditure entailing more establishment charges being debited to maintenance instead of to capital.

But owing to the very large area irrigated during the year the cost per acre of maintenance charges is only 1.34 per acre against 1.46 in the previous year.

Native State Branches—The following table compares the results of collections, assessment profits and area assessed with the previous year :—

Year.	AMOUNT OF REVENUE.		Area assessed.	PROFITS ON	
	By collections.	By assessment.		Collection.	Assessment.
	Rs.	Rs.		Per cent.	Per cent.
1914-15	21,58,731	21,03,077	462,497	10.11	9.77
1915-16	22,40,852	25,91,202	577,841	9.90	12.33
More or less ...	+93,121	+4,90,285	+115,344	—0.21	+2.56

The profits on "Collection" are low because of the poor rabi of 1914-15 (revenue of which was collected in 1915-16). On the other hand, profits on assessments will be high as the latter is on the very big rabi crop of 1915-16.

8. (i) (a) *Projects*.—The project for extension of irrigation to Maler Kotla State referred to last year received the approval of the Local Government, the limits of irrigation being the first drainage to the west of the Bhatinda Branch. This will entail the construction of two small distributaries; a detailed estimate is in course of preparation.

(b) The project for a dam and reservoir on the Sutlej River at Neila Gorge has now developed into a very large and comprehensive scheme. It

absorbs the smaller project for irrigating Tract A 9 in the Sirsa Tahsil. The general lines now are to relieve the lower portions of the Abohar and Bhatinda Branches by giving them a separate source of supply from a canal taking out from the Sutlej some 12 miles or so below Phillaur Railway bridge; this canal will have extensions into Bikanir and the greater part of Tract A 9. The water thus set free in the present Sirhind Canal System will be carried by means of a Feeder to Kaithal on Sirsa Branch of the Western Jumna Canal and this will take up the irrigation of the Branch below the junction with extensions into unirrigated tracts adjacent.

A special Project Division was sanctioned and has been at work since October last. The site selected for a Dam in the Sutlej has been favourably reported on by the Geological Expert and subsequently approved by the Inspector General. The water stored here will enable the scheme out-lined above to be carried out with not only an almost certain hope of financial success but a certain assurance of protection against drought in famine-stricken tracts.

(ii) *Effect of enhancement of water rates. Sugarcane.*—The cultivation of this crop is still stationary; only 1,071 acres were sown. The soil and climate of Ferozepore and Bhatinda Divisions appear to be unfavourable to this kind of crop, and it is not popular.

Cotton.—The area of cotton sowings fell from 23,435 in 1914 to 1,621 in 1915. The war is no doubt responsible for this; the drop in cotton prices at end of 1914 discouraged sowings, although there was a recovery in prices during the year.

Wheat—The area under wheat rose from 213,502 acres in 1914-15 to 299,013 in 1915-16.

(iii) *Agricultural conditions.*—The agricultural conditions were unfavourable for anything but canal sowings. The heavy *barani* rabi of 1914-15 and plague prevented sowings of early kharif; when the monsoon failed there was a sudden rush for fodder crops. Again, there being no *barani* kharif fodder crops large areas of rabi crop were put down on canal waterings. The results were favourable to the canal but bad for cultivators generally. Only a small area of oilseeds was sown on this canal—

				Acres.
British Branches	...	...	...	4,588
Native States Branches	...	...	...	6,289

The very dry year seems to have been beneficial in keeping down the plague epidemic.

There were heavy flights of locusts in August, but the damage was not excessive, only 225 acres needing remission.

(iv) *Interesting facts.*—The opening of the Project Division and the outline of the work to be done by it has already been touched on.

Proposals for another Division to take up parts of the too heavy Ferozepore Division and a part of the Bhatinda Division are under consideration but its actual formation may have to wait for less financially stringent times.

A scheme for a Railway to serve the Neila Dam site and tap the export of stone from the Nalagarh Quarries has also been suggested.

The material for the Stoney Gates to be erected at Rupar has been received and the work will be completed this winter.

Extensive experiments with concrete slabs were carried through during the year. It was proposed to line a length of the Main Line experimentally. This was approved and an estimate sanctioned. The work will be carried out this winter if a closure is possible.

UPPER BARI DOAB CANAL.

1. The expenditure (direct and indirect) on works, excluding suspense, amounted to Rs. 4,79,600 against Rs. 1,25,463 in the previous year, and was incurred on the following works :—Building Executive Engineer's Office at Gurdaspur; remodelling the Head Works at Madhopur; Hydro-Electric Installation at Amritsar; and lining the Main Branch Lower, with cement plaster. The sum of Rs. 4,79,600 includes Rs. 2,65,595 on account of expenditure in England.

Capital Account.

The suspense account showed a credit balance of Rs. 1,30,448 against a credit balance of Rs. 44,589 in the previous year.

2. Expenditure amounted to Rs. 1,02,058 against Rs. 1,53,369 in the previous year and was chiefly incurred on—extending the Crate Spur at Upper Training Works, Madhopur; constructing Lahore Cantonment Minor off-taking from Kaura distributary, Lahore Branch; outlets, and culverts Niaz Beg distributary; telegraph offices and signallers quarters at Sheikham and Mall; lining Government House distributary; remodelling Ghosal and Tarpai Drains; and bridges on Tarn Taran distributary.

Extensions and Improvements.

Besides the above many bridges were remodelled in the 4th Division, Upper Bari Doab Canal, and expenditure was also incurred on extension of plantations.

3. Expenditure amounted to Rs. 5,36,636 as against Rs. 5,40,811 in 1914-15. In addition to ordinary annual maintenance and repairs, expenditure was incurred on the following important works :—Works in the river at Madhopur; shingle clearance from the canal and river grouting Dhanna Weir; clearing Kalnuwan Swamp Drain; repairing and extending pitching, Main Line, Main Branch Upper, below Badian and Luliani Rapids; and raising and strengthening banks of the Amritsar and Raewind distributaries.

Maintenance and Repairs.

4. The total output of manufactures during the year amounted to Rs. 2,61,834 against Rs. 4,59,880 in 1914-15.

Central Workshops.

The principal work in progress was the Amritsar Hydro-Electric Pumping Scheme and this is now nearing completion. The expenditure upon this work amounted to Rs. 2,75,044 against Rs. 53,683 in the previous year.

The manufacture of munitions was also taken up by the shops later in the year. The work in the early stages was confined to the making of gauges for use at the various other shops which were to take up shell manufacture and about 900 gauges with a very close degree of accuracy were made.

For the purpose of manufacturing Howitzer shells a quantity of machinery, including 100 lathes, was obtained from private owners. By the close of the year under review about ten thousand shells were in hand.

Numerous petty jobs were also done for other circles of the Punjab Irrigation Department and Departments of other provinces; including 70 sets of rajbaha and 61 sets of minor, gates and gearings, and 50 winches without gates. Total castings of iron and brass amounted to 7,013 and 83 maunds, respectively.

The percentage charges realized on the value of work done was Rs. 1,04,581 against Rs. 1,16,481 for the previous year. These charges include percentages on those unfinished works, also, on which expenditure had been incurred in the previous year.

5. The following table compares the area irrigated during the year with the averages of the two previous triennia :—

Crop.	AVERAGE OF 3 YEARS ENDING		1915-16.
	1911-12,	1914-15,	
Kharif	Acres. 463,232	Acres. 550,379	Acres. 489,944
Rabi	595,109	611,508	655,290
Total	1,058,341	1,161,947	1,145,234

6. The mean rainfall is compared with the averages of the previous three years in the following table :—

District.	1915-16.		AVERAGE OF PREVIOUS THREE YEARS ENDING 1914-15.	
	Kharif.	Rabi.	Kharif.	Rabi.
Gurdaspur	16.29	2.21	20.60	8.02
Amritsar	0.61	2.09	19.51	6.01
Lahore	4.68	2.03	15.11	4.57

The monsoon was a very unfavourable one. It broke late and even then it was so weak, that it cannot be said, exactly, when it commenced.

In April 3 falls of rain occurred at Madhopur. In May no rain was recorded. In June only one fall of 0.4 inches occurred. In July, August and September it rained on 10, 17 and 11 days, respectively.

The months, October to March inclusive, were practically rainless. The total rainfall at Madhopur for the six months was only 3½ inches. During the year there were very few floods in the river Ravi and the highest gauge recorded at Mukesar was only 17 feet.

§ The net income (direct and indirect) amounted to Rs. 33,46,404 equivalent to 15.29 per cent. on the capital invested against 13.65 per cent. of the previous year.

Financial results based on collections

The uncollected balance of occupiers' rates was Rs. 14,966 against Rs. 12,155 at the end of the previous year.

Remissions of water-rate amounted to Rs. 84,219 against Rs. 1,35,212 in the previous year. The area for which remission was granted was 22,859 acres against 28,331 acres in 1914-15.

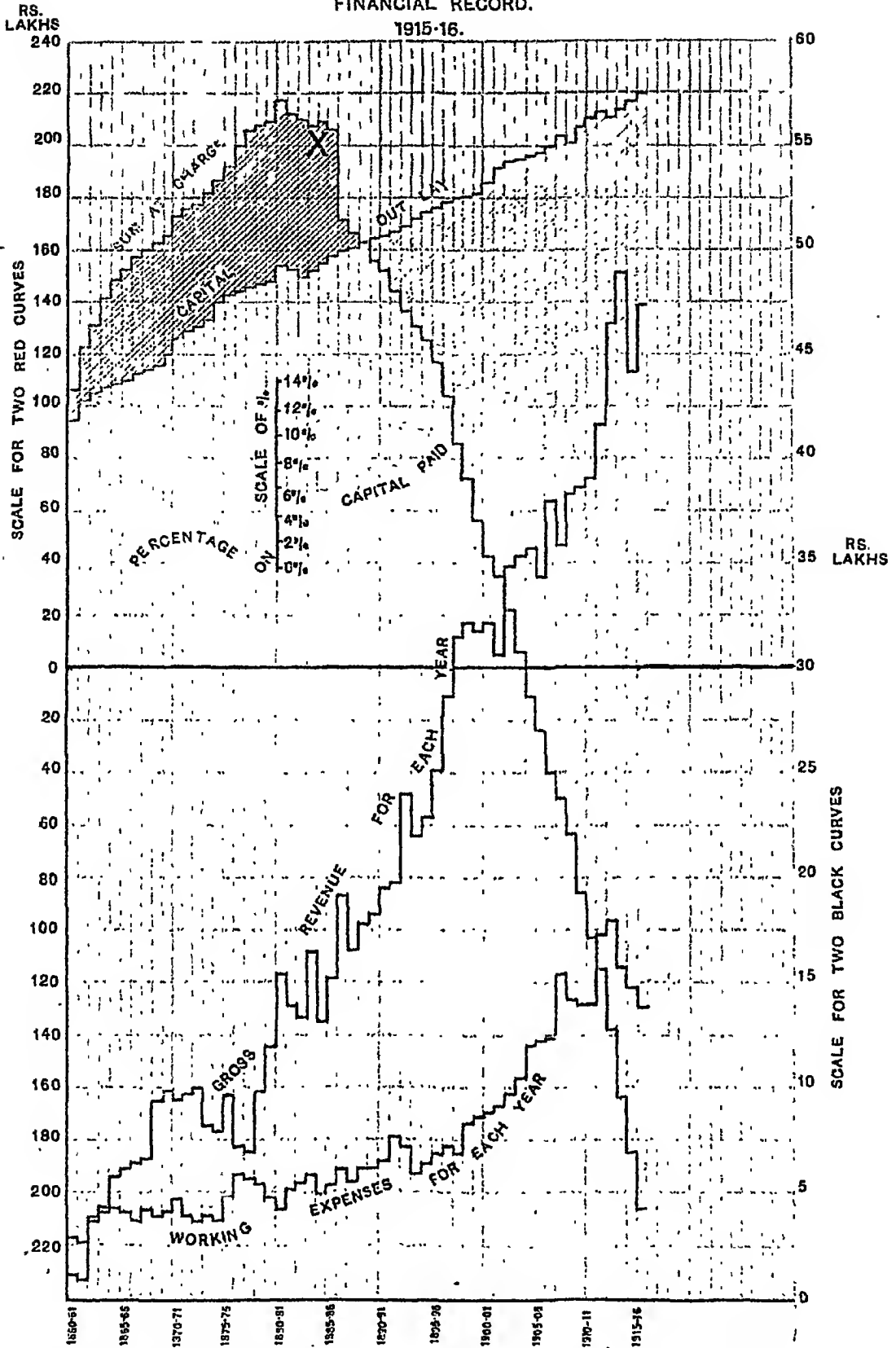
9. (a) Duty.—The average duty secured on the supply utilized was 83 acres in *kharif* and 263 acres in *rabi* as against 101 and 219, respectively, in the previous year.

General remarks.

The canal was closed on 15th March 1915 and was reopened on the 7th April 1915. No other general closure was possible.

UPPER BARI DOAB CANAL.

FINANCIAL RECORD.
1915-16.



N. B.—The intercepts in the red area show arrears of interest unpaid up to end of each year, which being added to the capital give sum at charge.

The intercepts in the blue area give the accumulated profits. In 1904-05 the whole capital was reimbursed.

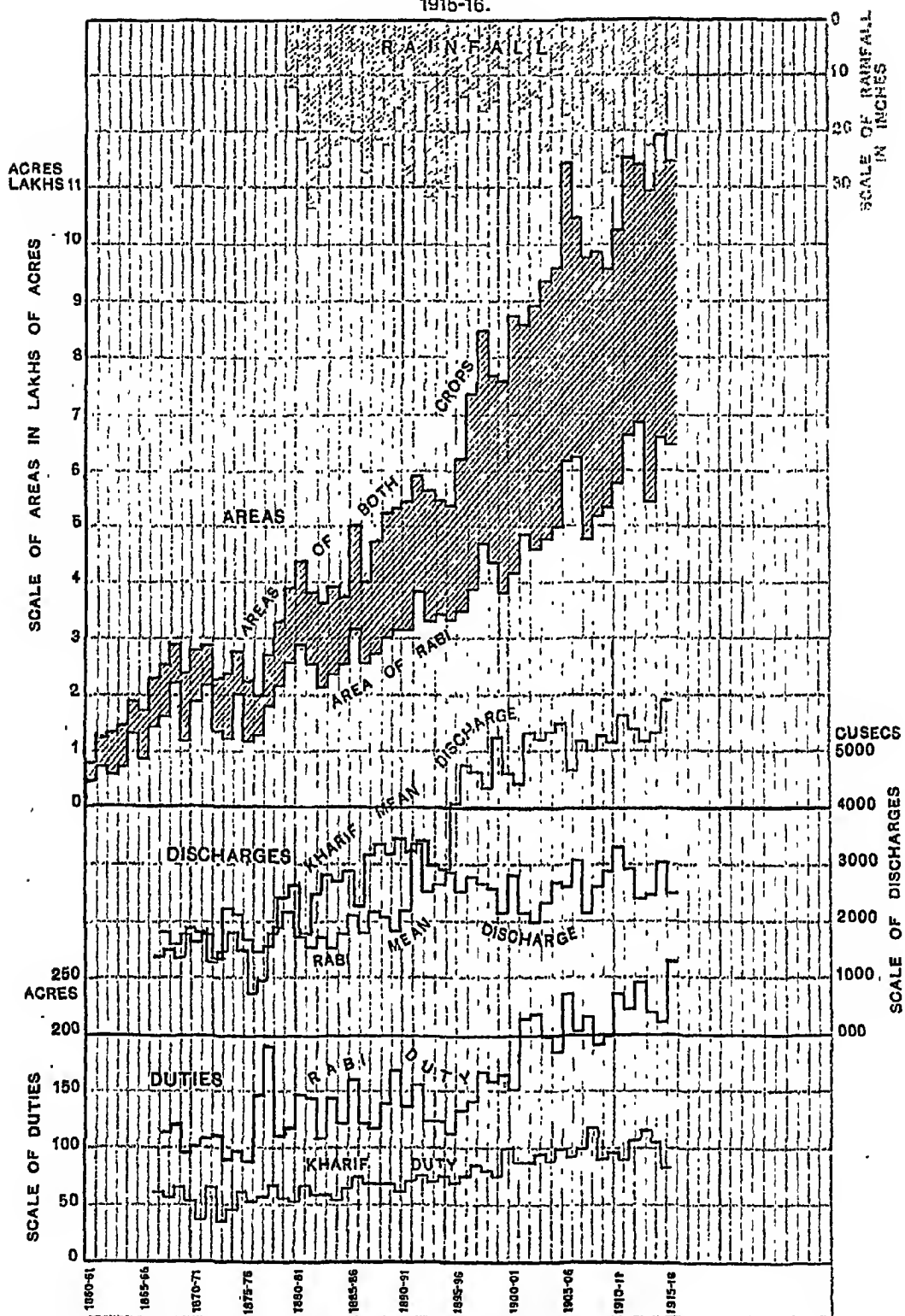
No interest is charged for the sums in the red area, so the diagram is rather distorted in this respect.

The intercepts between the black curves give the net income each year.

Remarks.—The sudden drop at X is partly due to a write-back of about 30 lakhs, but was continued by the rapid development of irrigation in the lower reaches of the canal. Up to 1888-89 the canal worked at a loss, since then it has been very profitable.

UPPER BARI DOAB CANAL.

WORKING RECORD.
1915-16.



N. B.—The intercepts in the red area show the Kharif acreage each year.

The discharges are measured at canal head and are averages for each crop.

The duties are derived from these areas and discharges.

Remarks.—The Kharif duty is fairly uniform and increasing slowly.

The Rabi duty is more irregular, due to variation in demand, but is increasing recently.

The Rabi supply decreased fairly steadily from 1891-92 to 1902-03, but nevertheless the areas increased owing to higher duty.

The Kharif supply has increased since 1894 very considerably, owing to the capacity of the canal being enlarged.

Usually the whole of the river winter supply is taken in for the Rabi crop, but after March and up to September the river supply is in excess of requirements.

(b) *Principal crops.*—The principal crops grown during the year are compared in the following table with those grown in the previous year :—

Name of crop.	1914-15.	1915-16.
	Acres.	Acres.
Wheat	2,03,879	244,185
Barley	7,158	0,251
Rice	61,063	72,719
Maize	48,689	86,517
Millet	12,912	45,997
Cotton	180,535	88,290
Sugarcane	28,963	29,361

The very large decrease in the area of cotton sown was probably due to a heavy fall in the price of cotton owing to the war.

This large decrease in cotton was partially compensated for by increase in maize and millets.

(c) *Agricultural conditions.*—In spite of the partial failure of the monsoon and the almost total absence of winter rains the agricultural conditions and results were fairly satisfactory. Owing to absence of rain, during the rabi, the "straw" was short but the grain outturn was better than might have been expected, and the year was, on the whole, a prosperous one for the cultivators.

There was little or no damage from insect pests.

(d) *Contemplated new works.*—The following are the most important works in prospect or in progress :

(1) *Remodelling Madhopur Outlet.*—Owing to the war, material did not arrive from England and thus no progress other than extending the masonry of piers was possible.

The work will, it is expected, be completed, during the coming cold weather.

(2) *Radial Arm Gates Madhopur Inlet.*—The gate erected towards the end of the cold season of 1914-15 worked satisfactorily and it is proposed to erect two gates of a slightly improved design during the coming winter season.

LOWER BARI DOAB CANAL.

1. The expenditure (direct and indirect) was Rs. 9,30,981 which brought the total amount debited to the Project at the end of the year to Rs. 2,10,81,992 against the revised project estimate of Rs. 2,23,28,402. The above includes a sum of Rs. 10,39,014 spent on water-courses, for which no provision was made in the project estimate as it is intended to recover this expenditure from the colonists.

Capital Account.

The expenditure was incurred chiefly on the following works i—

(a) "The main undertaking" noted in the report of the previous year, viz., "extending the floor of Balloki Weir" costing in all Rs. 2,92,948 was satisfactorily completed in June 1915. In addition to this "Painting Iron work in the superstructure of the Balloki Level-crossing" was completed in March 1916, at a cost of Rs. 5,779 and some useful experiments made in paints for steel work below water.

The balance of the expenditure under "works" was incurred in constructing various major and minor channels, flood embankments to keep out spills from the Ravi river, and the Deg Bund and Channel to lead the Deg Nallah floods into the Ravi instead of flooding the country to the west of the canal.

2. The only new work found necessary was an extension of No. 2 Down-stream Groyne of the Merala Weir; this was undertaken to break 2 up a cross-current that had set up along the face of the weir; the work was successful and justified the expenditure of Rs. 8,133.

The total expenditure incurred was Rs. 1,08,006; the bulk of this Rs. 87,822 was absorbed in clearing the liabilities of the work, completed last year, of extending the impervious floor of the Merala Regulator.

3. It might reasonably be expected that a comparatively new canal would cost little to maintain and keep in repair but this is not the case. Canal banks and flood bunds never cease to cause anxiety and are particularly expensive to maintain until they become settled and protected with an inner lining of silt berms. A large proportion of the annual expenditure under this head is incurred in repairing the damage caused by heavy rains; the monsoon of 1915-16 was, fortunately in this respect, a light one but still the expenditure was a little higher than in the previous year i.e., Rs. 3,02,123 against Rs. 3,78,889 many works that would have been carried out in years of normal conditions and provision of funds were postponed till better times.

4. The rainfall statistics given in the table below are correct indications of the dry nature of both the kharif and rabi seasons. During kharif, the River was, on the whole, much below normal and there were no high floods or long periods of high water level; the demand for canal water was necessarily keen but there was no difficulty in meeting it until the close of the season when it became intense for late sown rice crops.

The rabi season was remarkable on account of the absence of the usual Christmas rains: the river remained unusually low throughout; the Upper Jhelum Canal was not in a position to supply its quota from the Jhelum river, and consequently it was impossible to comply with the very keen demand.

The kharif crops were very fair and the rabi crops, assisted to some extent by well irrigation, were not much below normal. The area remitted during kharif was 3,612 acres and during rabi 3,497 acres giving percentages, on the areas irrigated of 2.32 and 2.15, respectively.

District.	1912-13.		1913-14.		1914-15.		1915-16.	
	Kharif.	Rabi.	Kharif.	Rabi.	Kharif.	Rabi.	Kharif.	Rabi.
Sialkot	14.0	-2.9	19.0	-2.9	25.0	-7.7	9.6	-1.7
Gujranwala	11.7	-2.4	15.2	-2.4	20.0	-5.1	4.2	-0.9

Area irrigated.

5. The irrigated areas for both fasls are given below and compared with the figures for the preceding years :—

Years.				Kharif.	Rabi.	Total.
				Rs.	Rs.	Rs.
1912-13	...	...	...	62,691	53,471	1,16,162
1913-14	...	...	...	1,23,882	40,928	1,64,110
1914-15	...	...	...	1,21,182	90,693	2,11,882
1915-16	...	...	...	1,59,152	1,65,910	3,25,062

The expansion has been steady but not so rapid as anticipated in the project forecast in which it was expected that an area of 500,000 acres would be irrigated in 1915-16; this failure to rise to expectations is largely due to the unforeseen delay in opening the Upper Jhelum Canal.

6. The gross receipts, working expenses and net revenue are given in the following table and compared with the previous years :—

Year.			REVENUE		Total.	Working expenses.	Net revenue.
			Direct.	Indirect.			
			Rs.	Rs.	Rs.	Rs.	Rs.
1912-13	...	..	1,35,507	Ni/.	1,35,507	1,41,421	-5,914
1913-14	...	...	5,53,366	5,903	5,59,269	4,83,077	1,56,192
1914-15	...	...	6,24,064	2,01,702	8,25,826	7,75,292	50,534
1915-16	...	...	9,56,256	61,077	10,17,333	8,93,808	1,89,525

The total receipts anticipated in the project forecast amounted to Rs. 21,25,875 for 1915-16. This was, however, not possible to attain as the canal was working only in the kharif until the opening of the Upper Jhelum Canal. As the latter has been opened now a rapid expansion of irrigation is expected to follow next year.

7. The Deg Nallah, that crosses the Raya Branch system, the North-Western Railway and Grand Trunk Road near Muridke, and that used to flood the country west of the Main canal, was unusually quiescent and consequently the anticipated scouring out of the Diversion Channel, leading its flood water into the Ravi river, did not progress to any appreciable extent.

LOWER CHENAB CANAL.

1. The expenditure (direct and indirect) amounted to Rs. 96,722 bringing the total outlay to date to Rs. 3,17,96,780.

The expenditure incurred was mainly in connection with measures for the prevention of water-logging.

2. Considerable expenditure was incurred the sum being Rs.9,80, 508 compared with less than a third of that figure (Rs. 3,03,281) spent in the previous year. The main work—one which could not be either delayed or undertaken piecemeal—was the improvement of the right bank river defence works at Khanki. Expenditure was also incurred (i) in improving the drainage of the water-logged tract in the Hafizabad Division and (ii) in remodelling distributary channels throughout the Circle, replacing the old type of barrel outlets with the Kennedy semi-module, or gauge outlet, intended for the rateable distribution of water.

3. Expenditure was normal and amounted to Rs. 9,95,947 compared with Rs. 8,53,533 of the previous year. The increase was occasioned by special repair work on the Khanki weir.

4. The year under report was abnormally dry in both crop seasons. As it will be seen from the rainfall statement below, the total kharif rainfall over the whole canal was 2½ inches and the rabi less than one inch. With these adverse conditions, the kharif area naturally diminished by nearly half a lakh of acres, and the rabi crop, which started with an area of sowings larger than the previous year, had eventually to be given special remissions. On the whole, however, the canal passed through this severe ordeal with credit though not without the utmost concern and effort on the part of both the canal staff and the irrigators.

Rainfall.

Mean.				Lyallpur District.	Jhang District.	Gujranwala District.
Kharif 1915	...	...	...	1.72	1.88	3.94
Rabi 1915-16	...	...	...	.50	1.04	1.21
Total				2.28	2.92	5.15
1914-15	...	...	...	18.83	18.39	20.73
1913-14	...	...	...	12.34	12.4	17.87
1912-13	...	...	...	8.01	9.77	15.54

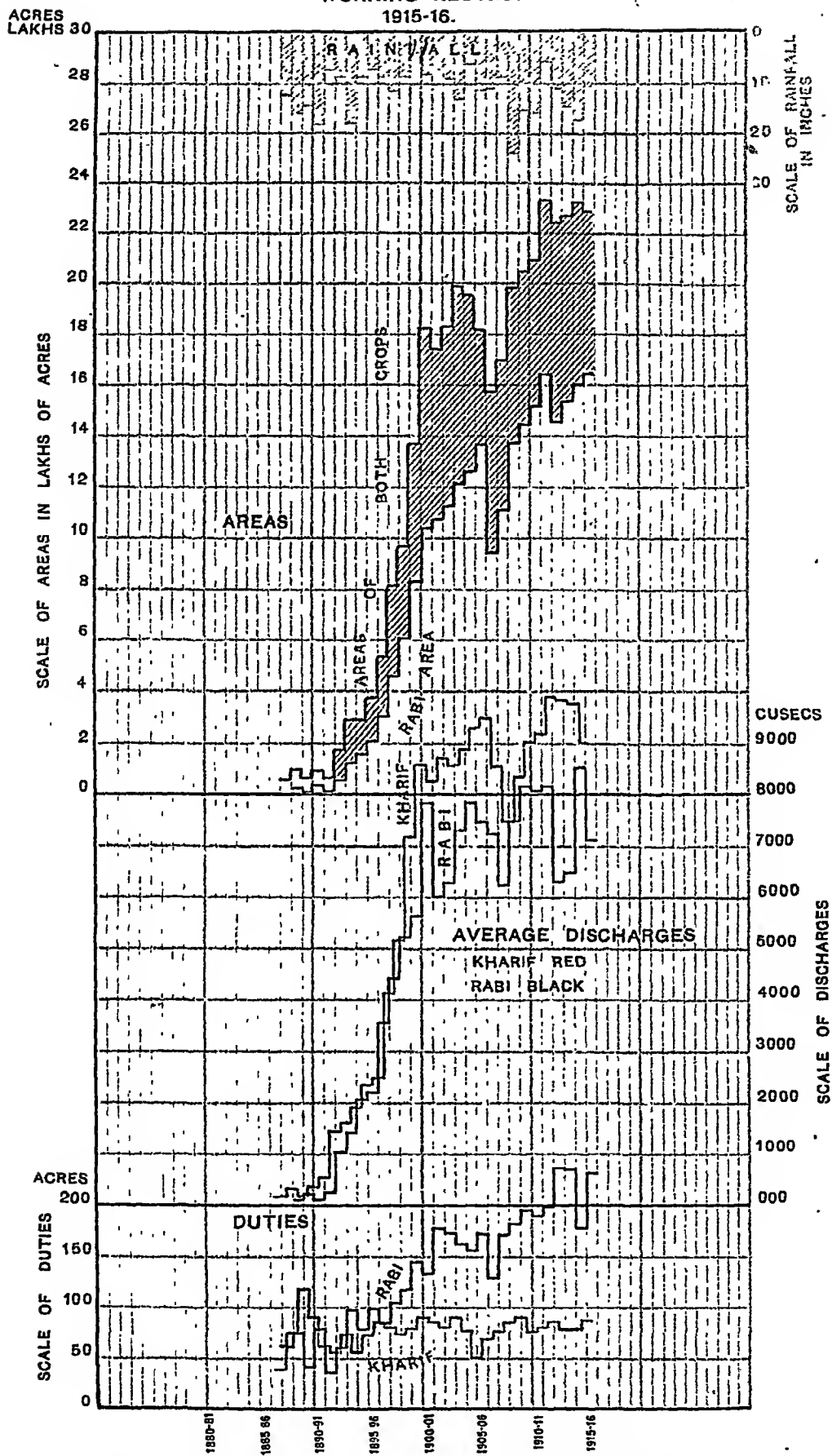
5. The following table compares the area irrigated with the averages of the two previous triennia :—

Crop.				AVERAGE OF THE 3 YEARS ENDING		Irrigated 1915-16.
				1911-13	1914-15.	
				Acres.	Acres.	Acres.
Kharif	...	...	...	688,878	724,802	652,142
Rabi	...	...	...	1,570,416	1,541,143	1,631,937
Total				2,254,094	2,266,005	2,284,079

LOWER CHENAB CANAL.

WORKING RECORD.

1915-16.

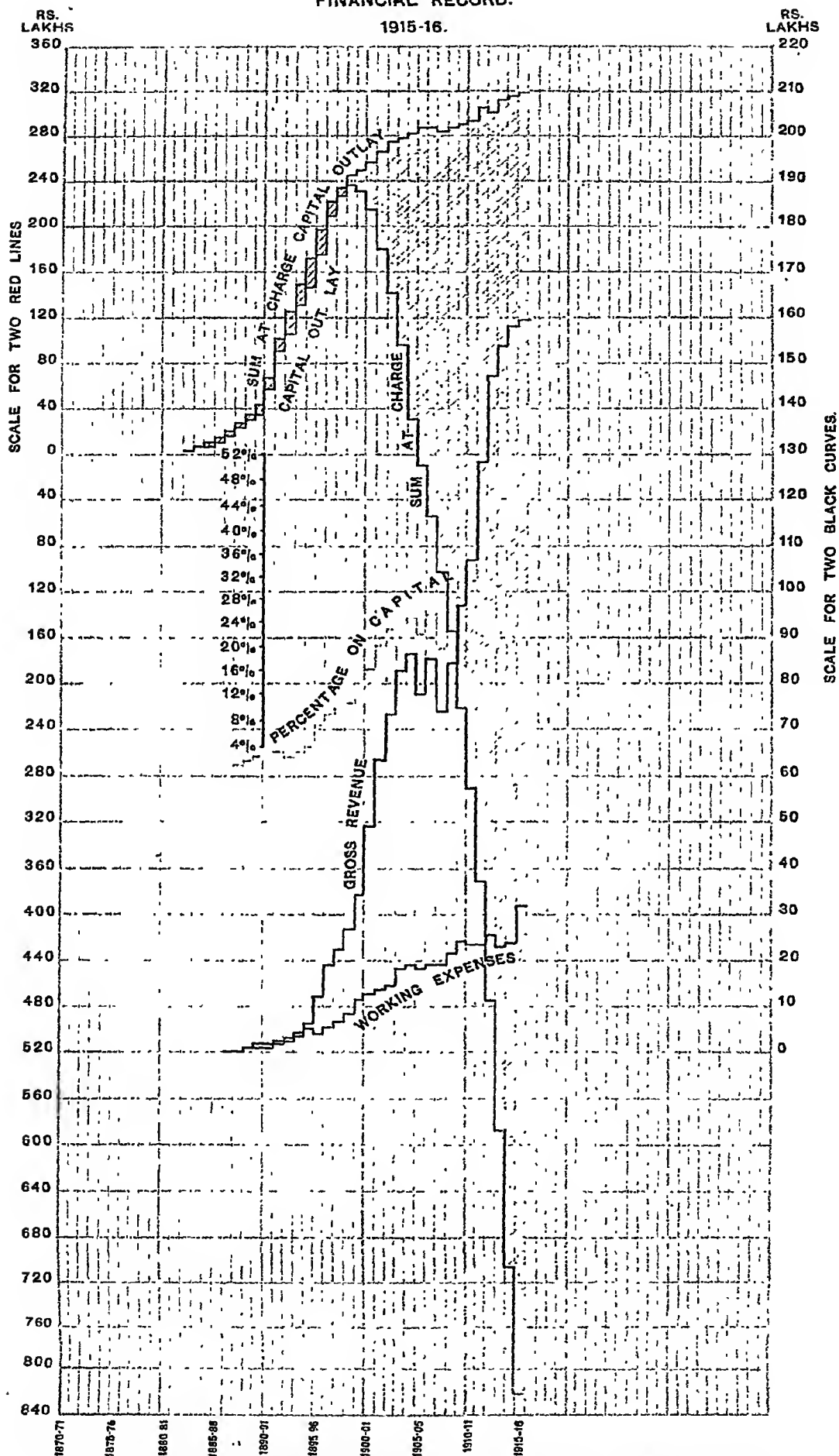


N. B.—The intercepts in the red area show the Kharif acreage each year.
 The discharges are measured at canal head and give averages for each crop.
 The duties are derived from these areas and discharges.
 The Rabi winter supply is comparatively high and reliable on this canal.

LOWER CHENAB CANAL.

FINANCIAL RECORD.

1915-16.



N. B.—The intercepts in red area show arrears of interest (which are small on this canal) and which being added to the capital give sum at charge.

The intercepts in the blue area are accumulated profits all arrears of interest were paid up in 1898-99.

The intercepts between the two black lines give net revenue.

Remarks—This canal differs greatly from the older . . .

6. The net revenue amounted to Rs. 1,26,50,247 equivalent to a return of 39.78 per cent. on the capital outlay of Rs. 3,17,96,780 incurred up to date.
Financial results based on collections.

In the previous year the figures of net revenue and percentage on capital were Rs. 1,32,53,785 and 41.81 per cent., respectively.

The decrease in net revenue in 1915-16 is due partly to shortage in kharif area partly to special rabi remissions and partly to increased expenditure on special works.

The accumulated net profits have increased from Rs. 10,24,86,450 to Rs. 11,40,60,690 against a capital of Rs. 3,17,96,780 invested at the close of the year.

7. The following are some points of interest worth recording : —
Points of interest.

The canal was in flow altogether for 161 days in the *kharif* and 183 days in the *rabi*, i.e., for a total of 344 in the year, and the average daily discharge at canal head was just over 8,000 cusecs.

In this period of time it irrigated 2,284,079 acres or nearly 3,500 square miles of crops and earned a net revenue of close on 127 lakhs of rupees.

These figures, while affording some idea of the productive capacity of water, do not throw any light on the immense activities and efforts repeated year in and year out by the great mass of cultivators who use the water and pay the revenue.

The following will help to form some appreciation of what this must amount to. The irrigation done is not uniform throughout the year, it is, in fact on this canal as on some others, very disproportionate as between kharif area and rabi area. The rabi area for 1915-16 forms 75 per cent. of the total irrigation, which means that in 183 days the area irrigated and matured was close on 75 per cent. of 3,500 square miles, i.e., 2,625 square miles of crops were irrigated and matured in this short time. But this is not all ; it is not only the area done but the quantity of water with which it is done. This will best be understood when it is stated that whereas in the kharif the cusec of constant discharge was carried no further than to irrigate 89 acres, the same discharge was in the rabi spread over 267 acres, i.e., three times as far.

The effort involved is tremendous and constant during this period and the measure of success largely dependant on the smooth working and efficiency of the canal.

It has been stated that the net revenue earned in the year was nearly 127 lakhs of rupees ; this being the money value of Governmental effort it may be asked what is the equivalent gain to cultivators as a whole. The following figures will show this approximately.

The average profit of an acre of irrigated land may be taken as valued at Rs. 30 out of which after paying Rs. 10 land revenue *plus* canal rates the balance Rs. 20 is the cultivator's share. Thus for the year under report the cultivators have recovered Rs. $20 \times 2,284,079$, or approximately three million pounds sterling.

The following are the areas of the more important crops :—

			Acres.
Wheat	...	...	1,039,114
Toria	...	...	136,925
Cotton	...	...	153,471

UPPER JHELUM CANAL.

This year, the 12th since construction began, saw the opening, on the 7th October 1915, of this the final link of the Triple Canal Project. The opening ceremony was performed by His Excellency, Lord Hardinge of Penhurst, the then Viceroy and Governor-General of India, on the 9th December 1915.

1. Description.

During the year, the Head Regulator of the canal (the only work required on the river) was successfully completed; the deep cutting immediately below the Regulator, through which the canal runs, was sufficiently advanced to admit of the canal being opened for irrigation in October. The excavation of this cutting was full of difficulties, and a large slip which occurred between R. D. 75 and R. D. 750 of the canal on the 22nd August 1915, made matters worse; this slip was successfully tackled, and the material, which blocked the canal temporarily, was removed, and the banks set back sufficiently to prevent a recurrence of the evil. The total quantity of material which had thus to be removed, due to this slip, amounted to only 60 lakhs cubic feet all told. This slip was inspected by the Director of the Geological Survey of India and examined in detail by an officer of that department, deputed by him for the purpose. They expressed the opinion that further slips were not likely in the same region, and that the rest of the cutting was also not likely to suffer from similar causes. The year under report, thus, saw the Main Line and the Gujrat Branch completed from Head to Tail and a brisk beginning made on the construction of Main Line and Gujrat Branch distributaries and their water-courses. None of these latter were, however, sufficiently advanced by October to be opened for irrigation.

The area proposed to be annually irrigated as now arrived at is 327,928 acres against 344,960 acres anticipated in the project. The designed discharge at head of the canal is 8,500 cusecs and at tail 7,812 cusecs.

2. The expenditure (direct and indirect) amounted to Rs. 19,43,740,

Capital outlay.

which brought up the total cost debited against the project at end of the year to Rs. 4,23,61,119. The expenditure was incurred chiefly on: Mangla cut and the Head Regulator; iron work and gearing for Regulator Suketar II; road bridges over weir Suketar I and Bong escape; district road bridges, falls, inspection houses, head regulators of distributaries, and masonry works on the Gujrat Branch; fall and bridge at R. D. 418,500, Main Line; excavating Bhimber Diversion, Main Line; constructing 2 upstream groynes and a crest wall to syphon R. D. 285,600, Main Line; constructing Sub-Divisional Offices with menial quarters at R. D. 347,010, Main Line, and at Chakori; inspection houses at Pahrianwala, Kalu Pindi, Mitha Chak and Maghowala; and masonry works on distributaries and minors of Main Line.

3. A revenue account was opened during the year. The receipts

Revenue account.

amounted to Rs. 6,234, and the expenditure to Rs. 3,42,150, showing a deficit of Rs. 3,35,916, as against project anticipated revenue of Rs. 2,22,500. The reason for this deficit is that no irrigation was done during the year, and the above receipts were from rent of buildings and some other miscellaneous sources.

4. Expenditure amounted to Rs. 20,225, and was incurred mainly

Extensions and improvements.

on improvements connected with the slip mentioned in paragraph 1 *supra*, the approach roads in the Mangla-Station and protection below the tail fall at R. D. 418,500 Main Line.

5. Expenditure of Rs. 2,50,338 was incurred on the maintenance and

Maintenance and repairs.

watching of canal banks; strengthening weak reaches and maintenance of buildings; canal drains and plantations.

6. The rainfall figures for the year under report compare as below with those of 1914-15 :—

Stations.					1914-15	1915-16.
Mangla	...	...	...	..	(a) 24.88	16.33
Pauranwala	...	...	...	...	29.60	12.10
Dinga	...	...	...	..	32.35	15.18
Karariwala	...	...	...	...	20.10	8.30
Mand	...	...	...	...	23.40	8.40

(a) Average for the previous 7 years

The year was unusually dry and there were no floods of importance either in the river or in the cross drainage works. The latter were all thoroughly inspected and maintained in good order and repair ready for the heavy floods that usually follow such a year of drought.

LOWER JHELUM CANAL.

1. The expenditure (direct and indirect) amounted to Rs. 24,724, but the recovery of Rs. 2,526 from the cultivators on account of acreage rate, and a credit of Rs. 7,898 under the suspense account (stock issues to works), reduced it to Rs. 14,300. This brought the total outlay to end of the year to Rs. 1,59,65,762. The expenditure was incurred chiefly on Superintending Engineer's residence and office at Sargodha, and masonry outlets on the Faruka distributary.

2. Expenditure amounting to Rs. 22,220 was incurred on materials supplied by the Central Workshops, Amritsar, for remodelling the Rasul Head Regulator; remodelling discharge flumes at Ala, and at R. D. 4,500 Northern Branch, and remodelling Heads of Mithalak, Ajwala and Janiwala distributaries.

3. Expenditure to the extent of Rs. 2,46,658 was incurred on the annual maintenance of channels, masonry works, buildings and on the stone "talus" below Rasul weir, repairing nose of Divide Groyne, filling scour below undersluices; repairs to noses of groynes 6 and 7 of the weir, and to stop-dam at R.D. 141,000 of the Main Line.

4. The rainfall was scanty, and is compared below with that of the previous three years :—

District.	Season.	YEAR			
		1912-13.	1913-14.	1914-15.	1915-16.
Shahpur ...	Kh arif	Inches. 10.40	Inches. 12.81	Inches. 17.02	Inches. 3.96
	Rabi	2.39	3.23	4.22	0.36
	Total	12.79	16.07	21.24	4.32
Jhang ...	Kh arif	7.81	13.66	13.40	1.98
	Rabi	2.67	3.00	2.93	0.36
	Total	10.48	16.75	16.33	2.34

The kharif season opened unfavourably and continued so throughout. A fairly large area was sown, but with moderate success owing to the scarcity of rain, exceptionally hot dry weather, insect pests, and disease. At the beginning of the season a great deal of damage was done to crops by grass-hoppers. Cotton sowings were greatly restricted owing to the low prices that were realized in the previous year on account of the war. The outturn was also very poor, the plants grew well and looked healthy and strong, but flowered very late, and the bolls that formed were attacked by boll-worm. General remissions on account of failure of cotton had, therefore, to be granted under rule 20 (iii) of the rules under the Canal Act.

The rabi season was practically dry, there being only 0.36 inches of rainfall which occurred in the months of December 1915 and February 1916. Hail stones fell in some parts of the 2nd Division and damaged the crops.

The total area remitted was 22,280 acres including 2,228 acres remitted under Tenancy Rules. The failure of cotton and gram accounted for 13,388 acres, and the balance was due to other causes.

The canal was closed at its head for 5 days during *kharif*, and for 13 days during *rabi*, for special repairs to works.

The demand for water was keen and the supply sufficient. During February and the first week of March 1916, rotational working of the branches was required for the first time in the history of the canal.

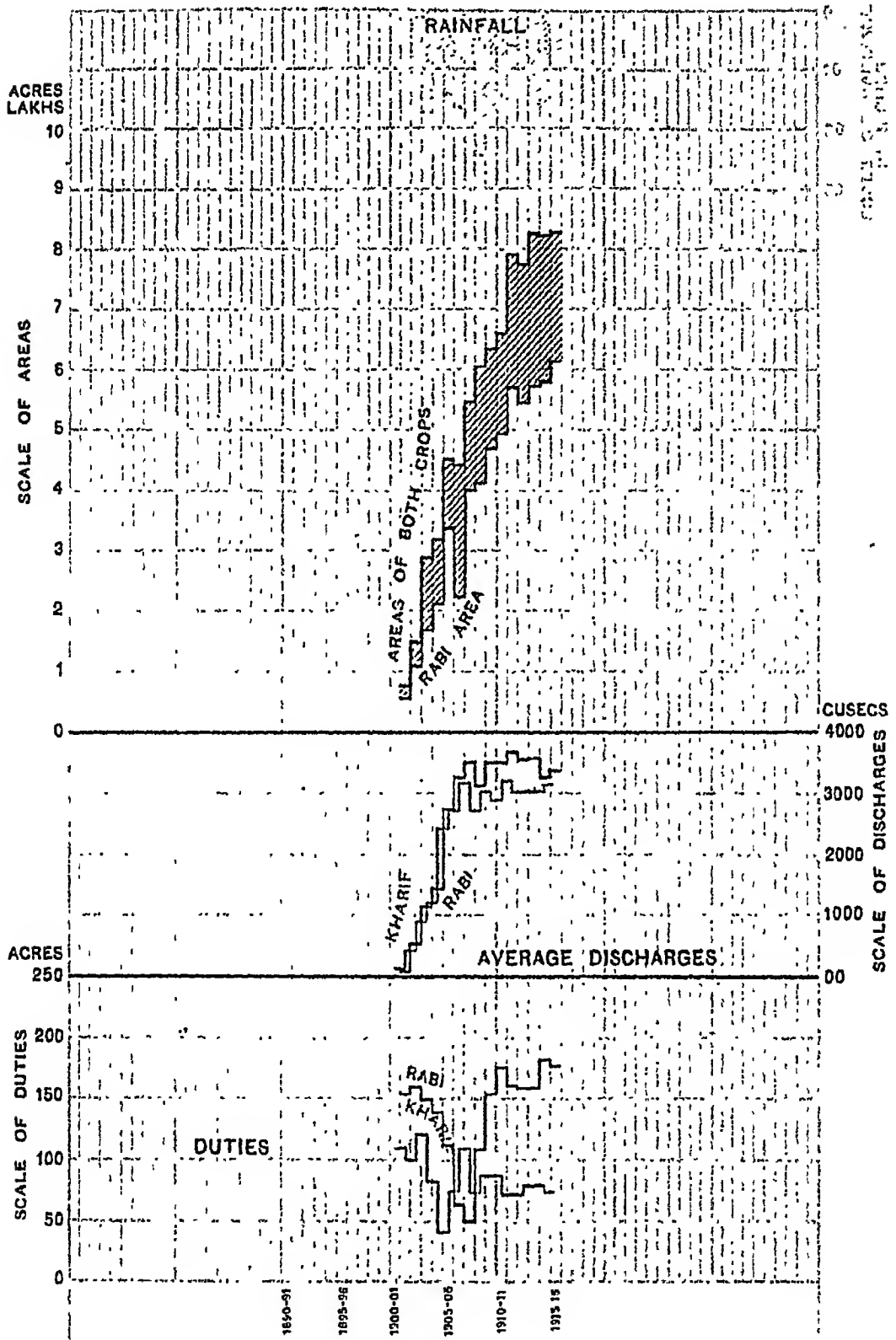
5. The areas, irrigated and assessed, compare as follows with the corresponding figures of the average of the preceding triennium :—

District.	AVERAGE OF THE THREE YEARS ENDING 1914-15.			1915-16.		
	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.
<i>Irrigated areas.</i>	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Gujrat ...	4,387	8,166	12,553	4,156	9,430	13,586
Shahpur ...	197,023	478,564	675,587	176,669	517,320	692,989
Jhang ...	41,238	87,082	128,320	37,032	90,560	127,592
Total ...	242,648	573,812	816,460	216,857	617,310	834,176
<i>Assessed areas.</i>						
Gujrat ...	4,349	8,146	12,495	3,988	9,430	13,418
Shahpur ...	192,896	471,185	664,081	159,882	514,017	673,899
Jhang ..	36,200	82,780	118,980	34,153	90,426	124,579
Total ...	233,445	562,111	795,556	198,023	613,873	811,896

The decrease in the area irrigated during kharif was due to the causes detailed in paragraph 4 above, and the reason for an increase under rabi was the failure of the winter rains whereby the area that was sown *barani* had to be matured by the canal.

Out of the total area of 834,176 acres irrigated 377,253 acres were in proprietary villages and 456,923 acres in colony villages.

// LOWER JHELM CANAL. WORKING RECORD. 1915-16.

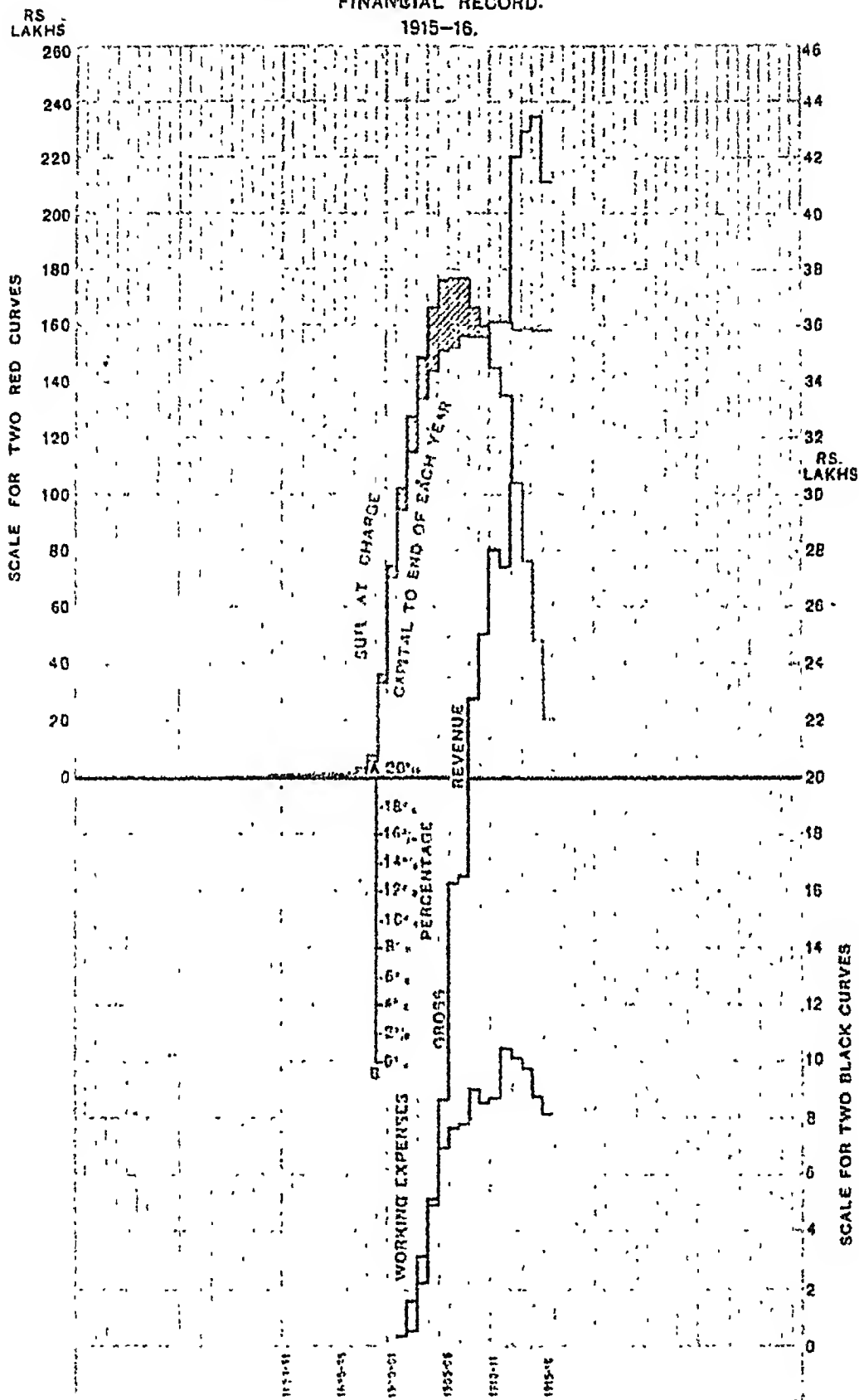


A. B.—The intercepts in red area give the Kharif irrigation each year. The discharges are measured at mile 14 of the main canal and give averages for each crop. The duties are derived from these areas and discharges.

LOWER JHELM CANAL.

FINANCIAL RECORD.

1915-16.



N.B.—The intercepts in the red area show arrears of interest which, added to the capital, give the sum at charge.

The intercepts in the blue area give the accumulated profits.

The scheme was commenced in earnest in 1898-99 and opened in 1901. Until 1905-06 the canal did not pay any interest on its capital cost, this being due to free remissions of water rates on new irrigation.

6. The gross actual receipts (direct and indirect) amounted to Rs. 41,21,783, the working expenses to Rs. 8,17,859 and the net revenue to Rs. 33,03,924, giving a return of 20·70 per cent. on the capital outlay to end of the year. This return was about 1 per cent. less than that of the preceding year, due to remissions of about one lakh of rupees on account of failure of cotton in kharif 1915.

The figures for 1915-16 and the average of the preceding three years are compared below :—

Items.	Average triennium. 1912-15.	1915-16.
<i>Direct Receipts.</i>		
Occupiers' rates	26,91,323	25,79,788 (a)
Miscellaneous Receipts	55,512	69,057 (b)
Total Direct Receipts	27,46,835	26,48,845
Indirect Receipts	15,19,090	14,72,343 (c)
Total Direct and Indirect	42,65,924	41,21,188
Charges to revenue	9,59,498	8,17,859 (d)
Nett Revenue	33,06,426	33,03,024
Percentage on Capital	20·00	20·70
Nett revenue less interest	27,99,353	27,63,263
Percentage on capital	17·52	17·37

(a) The decrease was due partly to restrictions of cotton sowings on account of the war; and partly to the general remission aggregating about 1 lac of rupees, as stated above.

The average rate per acre assessed works out to Rs. 3·18 against 3·38 for the previous triennium.

(b) The increase under miscellaneous receipts was due to larger realizations from—

Plantations, water-power, and Miscellaneous.

(c) The decrease under Indirect Revenue follows the decrease under occupiers' rates.

(d) The working expenses were about 1½ lacs less than the last 3 years' average. This was chiefly due to the energy shown by the Superintending Engineer and his staff in economising expenditure on maintenance.

The rate per acre of area assessed was Rs. 0·89 against Re. 1·21 in the preceding triennium.

7. (a). A new Division called the Project Division was formed on 27th June 1916 for the purpose of remodelling the Lower Jhelum Canal. The object of this special division is to secure uniformity of action and progress throughout the canal in the very important work of bringing the outlet system up to modern requirements and to remodel the canals and distributaries to take advantage of any gain of command that has accrued through the gradual silting processes that have been going on during the 15 years since the canal was opened.

General remarks.

Orders could not be passed on such schemes until the project for the Woolar Lake had been got out, the success of the similar division of the Lower Chenab Canal justified entrusting the work to a specially selected officer who would devote all his time to this subject and thus greatly relieve the Superintending Engineer and the other Divisional Officers, whilst at the same time being at leisure himself to thoroughly study the canal as a whole and make suitable proposals for its improvement.

(b) *Remodelling the Head Regulator of the Canal.*—The water way of the head regulator is to be increased by the removal of the jack piers. Caissons have been designed to close off one bay at a time and thus carry out the work without interrupting the canal supply.

(c) *Woolar Lake Barrage.*—A project estimate for this work was prepared in 1915 by Mr. R. E. Purves, C.I.E., late Chief Engineer, Irrigation Branch, Punjab. It is under consideration by the Government of India. The object of the scheme is partly to make good the shortage of supply caused by the Baramula dredging operations and partly to supplement the winter supplies of the Jhelum river for the use of the Triple and other canals.

(d) Another scheme for supplementing the supply of the river is the Kahan Dam. Rainfall and run off statistics are being collected. This year the run off of the catchment area was approximately 32,500 foot acres.

(e) Efforts are being made by the Divisional Officers to enforce, with greater rigidity, the rules for the preparation of fields for irrigation to effect the economical use of water these rules have not been properly observed by the cultivators in the past. Attention is also being paid to village water-course systems over the "Dharyas" or old river banks as these are not at present efficient.

UPPER SUTLEJ DIVISION INFUNDATION, CANALS.

1. Expenditure (direct and indirect) amounted to Rs. 11,602, and was incurred mainly on completing the rest-house at Ladhewal and the subordinates' rest-house at Kalewal and on constructing subordinates' rest-houses at Lalugudar and Bunga Hyat.

2. Expenditure amounted to Rs. 19,746 and was mainly incurred on constructing 3 new bridges on the Kangampur, Attari and Chunian distributaries; providing railings to the Gandasinghwala regulator and escape head; constructing out-houses, stables and cook-house at Kaliaana, cook-houses at Jiwan Shah and Shahamad, and *katcha* subordinates' quarters at Taher; re-roofing Kaliaana rest-house and making 15 pacca outlets on Khanwah.

3. Expenditure incurred was Rs. 2,10,397 and was in addition to the ordinary silt clearances of the Canal head reaches and the ordinary maintenance of all Government channels, incurred on the following special works:—

Excavating a new head reach, Upper Sohag Canal; extending head reaches of the Lower Sohag and Katara Canals; and regrading and improving the Faridpur, Pakpattan, Gobindpur and Dhapai distributaries.

4. The gross income amounted to Rs. 7,46,103 and working expenses to Rs. 4,09,708, showing a net revenue of Rs. 3,36,395 or 18.50 per cent. on the capital invested as against 14.59 per cent. in 1914-15. This highly favourable result is due to the record area irrigated in rabi 1914-15.

5. The following tables compares the area irrigated with the averages of the two previous trienna :—

AVERAGE OF 3 YEARS ENDING.								
Crop.	1911-12.		1914-15.		1915-16.		REMARKS.	
	Gross.	Net.	Gross.	Net.	Gross.	Net		
Kharif	...	1,39,376	1,10,252	1,75,178	1,58,715	1,34,167	1,27,612	
Rabi	...	1,55,748	1,53,715	1,77,888	1,77,889	1,38,559	1,39,559	
Total	...	2,95,124	2,63,967	3,53,066	3,36,603	2,72,746	2,66,171	

It will be seen that the net area assessed exceeded by 174 acres the average of the triennium ending 1911-12, whereas it is short by 70,432 acres as compared with the average of the 3 years ending 1914-15. Excluding, however, the record year of 1911-15, the net area assessed is less by 22,000 acres than the average of the 10 previous years. Considering the year under review as one of extreme drought the result should be considered satisfactory.

6. (a) The following table shows the dates of opening and closing of the canals together with the corresponding dates of previous year.

Canals	DATE OF OPENING		DATE OF CLOSING.		NUMBER OF DAYS CANAL WAS IN FLOW.		REMARKS.
	1915	1914	1915	1914	1915.	1914.	
Katora	Forenoon 10-7-15	Afternoon 6-5-14	Afternoon 16-10-15	Forenoon 7-10-14	160	153	
Khanwah	Forenoon 1-5-15	Afternoon 19-5-14	Afternoon 26-10-15	Forenoon 13-1-14	16	116	
Upper Sohag	Forenoon 9-5-15	Afternoon 1-5-14	Afternoon 14-10-15	Afternoon 15-10-14	159	167	
Lower Sohag	Forenoon 10-5-15	Afternoon 3-5-14	Afternoon 11-10-15	Forenoon 5-10-14	175	154	

(b) Some works of improvement calculated to increase substantially the annual irrigated area were carried out during the year. As a result of these the Katora Canal now possesses two good reserve heads, one of which was actually used towards the end of the last flow season with good effect. Similarly the Upper and the Lower Sohag Canals have been provided with effective reserve heads. The four distributaries which used to give considerable trouble on account of short supply at their tails were regraded and improved with a view to remedy these defects.

SIDHNAI CANALS (INCLUDING THE KORANGA, FAZIL SHAH AND ABDUL HAKIM SUBSIDIARY CANALS.)

1. No expenditure was incurred during the year. A credit of Rs. 966, under the Suspense Account (stock issues to works) was, however, received during the year and this reduced the outlay to end of the year to Rs. 13,30,901.

Settlers account.—The balance of Rs. 2-7-7 at end of the previous year was spent during the year. A further sum of Rs. 31-12-0 on account of repairs to bridges on the Sidhnai Canal was, however, received which will be cleared in 1916-17.

Extensions and improvements.

2. Expenditure was Rs. 10,516 against Rs. 3,856 in the previous year, and was incurred on works of a minor character.

3. Expenditure amounted to Rs. 43,062 against Rs. 69,562 in the previous year, and was incurred on the usual annual repairs, silt clearances and strengthening distributaries.

4. The total rainfall at Kabirwala was only 2·72 inches. (2·41 inches in *kharif* and 0·31 in *rabi*) against 14·59 and 1·37, respectively, during 1914-15. There was a marked absence of high floods in the Ravi.

The demand for water was keen throughout the year.

The supply in the Sidhnai and subsidiary canals was abundant during *kharif* with the exception of the months of June and July during which there was some shortage of water. Indigo and early sowings of jowar suffered to a small extent on this account. During *rabi*, the river failed very early. The subsidiary canals had to be closed on 23rd October 1915, and the Sidhnai ceased to flow on 3rd November 1915 when the Ravi ran dry.

5. The following table compares the irrigation effected on the whole system with the averages of the two previous triennia :—

Season.	AVERAGE OF 3 YEARS ENDING.		1914-15.	1915-16.
	1911-12.	1914-15.		
	Rs.	Rs.	Rs.	Rs.
Kharif	1,10,572	1,27,037	1,39,677	1,17,999
Rabi	1,47,295	1,51,507	1,91,982	1,52,151
Total	2,57,867	2,78,544	3,31,659	2,70,150

Although the area irrigated during the year compares unfavourably with that of the preceding year, it is, nevertheless, well above the average. The percentages of failed area were 16·46 in *kharif* and 13·06 in *rabi*, large figures, due mainly to scanty rainfall.

6. The total income from all sources amounted to Rs. 8,32,779 against 6,72,544 of the preceding year. The *rabi* area of 1914-15, being far above the average, conduced to these remarkably large receipts.

Working expenses amounted to Rs. 1,46,592 and net income to Rs. 6,86,187 or 51·55 per cent. on the capital outlay against 5,14,314 or 38·61 per cent. of the preceding year.

The uncollected balance of assessment of occupiers' rates was 3,173.

8. The financial results of the year are eminently satisfactory. Figures of irrigation show some reduction on those of the preceding year, which was, however, an exceptional one. The *rabi* area matured in 1916 was remarkably good in view of the small amount of precipitation.

No works of any magnitude are contemplated owing to stringency resulting from the war.

INDUS INUNDATION CANALS.

1. The expenditure (direct and indirect), amounting to Rs. 1,51,024 compared with Rs. 3,326 in 1914-15, and was incurred (a) on the construction of a residential building for the Executive Engineer at Dera Ghazi Khan, (b) the scheme for giving a perennial supply of water for irrigation to the Dera Ghazi Khan Municipality, (c) and the lowering of the bed of the head reach of the Manka Canal.

2. Rupees 117,195 were spent as compared with Rs. 87,713 during the preceding year. Numerous works of a minor nature were completed and the following important works were in progress :—Constructing a retired ring bund behind the Kotla bund ; a new head for the Fazalwah canal ; the Ohhabri and Dhan Sikhani flood embankments ; a diversion of the Banuhan Branch, and a new head reach for the Kasturi canal. The Talai flood embankment was raised, and a tie bund between the Manka Canal and Shah Sadar Din was constructed.

3. Expenditure amounted to Rs. 1,95,703 against Rs. 1,86,221 in the previous year, and was incurred on the usual annual maintenance and repairs, silt clearances of canals, strengthening of certain flood embankments and other miscellaneous works.

4. The average rainfall during kharif was 1·07 inches and during rabi 0·85 inches against 0·93 inches and 2·20 inches, respectively, during 1914-15. The Indus river gauge at Attock did not, at any time, rise above 32 feet, whereas, in ordinary years, floods of between 40 and 50 feet are to be expected.

The demand was keen owing to scanty rainfall.

Locusts were prevalent during the early part of the kharif, and some damage to crops also resulted from violent winds in September.

The following statement shows the periods during which canals were in flow :—

Name of canal.	DATES OF		Number of days canal was in flow.
	Opening.	Closing.	
Massuwah	1st June 1915 ...	6th October 1915 ...	113
Fazalwah	2nd May 1915 ..	16th October 1915 ...	167
Manka	1st May 1915 ..	17th October 1915 ...	163
Shoria	20th April 1915 ...	9th October 1915 ...	163
Kasturi	1st May 1915 ...	10th September 1915	121
Dhingana	10th April 1915 ...	11th October 1915 ...	177
Chibri	1st May 1915 ...	14th October 1915 ...	152
Sahiban	30th April 1915 ...	8th October 1915 ...	149
Gamun	4th May 1915 ...	7th October 1915 ...	139
Nur Dhundi	4th May 1915 ...	20th October 1915 ...	169
Dhundi Kutab	10th May 1915 ...	30th October 1915 ...	163
Kadra	6th May 1915 ...	12th October 1915 ...	163

With the exception of the Manka, Massuwah, Kasturi and Nur Dhundi Canals supplies were, on the whole, favourable, and the Dhingana Canal showed a marked improvement over previous years. The low supply in the Nur Dhundi Canal, due to unfavourable conditions at the off-take, is regrettable, as the Dhundi Estate mainly depends on irrigation from this source.

5. The following table compares the areas assessed with the averages of the two previous triennia :—

NAME OF CROP.				AVERAGE OF THREE YEARS ENDING		1915-16.
				1911-12.	1914-15.	
				Acre.	Acre.	Acre.
Kharif	...	...	...	134,663	119,950	102,147
Rabi	...	...	...	82,199	57,021	79,882
Total				216,862	176,971	182,029

The decrease in *kharif* is attributed to the paucity of supply in some of the canals owing to a low river and absence of heavy floods.

This decrease was, however, to some extent, compensated for by the *rabi*, which is the second largest on record.

6. The total income from all sources was Rs. 4,37,175 against Rs. 4,25,502 in 1914-15, and the total expenditure amounted to Rs. 4,41,584 against Rs. 4,14,151 of the preceding year. There was, therefore, a deficit of Rs. 4,409 against the profit of Rs. 11,351 in the preceding year.

The uncollected balance of the assessment of occupier's rate was Rs. 14,554.

The percentage on the Capital outlay was - Re. 0.14 against Re. 0.4 in the previous year.

7. Financial results are again disappointing, but due regard should be had to the fact that the heads of the canals of this series are subject to changes on a large scale and require heavy expenditure to maintain. Furthermore, prevention of river spill requires the maintenance of many miles of expensive flood embankments, and, although the river at the site of the old city of Dera Ghazi Khan has moved to the east, inroads on the west bank at certain points still continue, notably opposite Dhan Sikhani, Chabbri, Sahiban and Kotla. At these sites costly retired works have to be thrown up, and a large slice of the revenue earned by the canals, which, under favourable conditions, might be devoted to works of a remunerative, as distinct from a protective, character, is swallowed up in the process.

During the course of the year the heads of the Fazalwah and Kasturi Canals were reconstructed and remodelled, the latter work disposing of a long outstanding necessity. The new town of Dera Ghazi Khan has been provided with a small perennial water-supply for irrigation by means of pumping. The bed of the Manka Canal in the upper reach of over 20 miles was lowered by about 1 foot, by which means the capacity of the canal is increased and the areas at the tail will benefit accordingly. This work, which cost over one lakh of rupees, provided labour for those hit by the scarcity prevailing in the district at the end of the hot weather of 1915, owing to failure of the monsoon rainfall.

The principal works of importance under contemplation are :—

- (a) A syphon to carry the Fazalwah across the Manka Canal for irrigating high land uncommanded by the latter.
- (b) Amalgamating the Sohan Branch with the Gamun Canal to improve irrigation on the Lower Dhundi and Sohan.
- (c) Constructing the Akilpur Minor for irrigation of land at present insufficiently supplied with water.

Minor Irrigation Works.

SHAHPUR (IMPERIAL) INUNDATION CANALS.

1. No expenditure was incurred during the year.
2. The expenditure amounting to Rs. 258 was incurred on minor works only.
3. Expenditure to the extent of Rs. 25,157 was incurred on silt clearance and usual maintenance and repairs.

4. The rainfall during the year was 3.53 inches against 24.43 inches in the previous year. During *khariif* the rainfall was 3.15 inches and during *rabi* 0.38 inches. The *khariif* rainfall occurred in April 0.72", May 0.51", June 1.05", July 0.52", August 0.29" and September 0.06". During *rabi* the months of October, November and December were quite rainless, and the showers in January, February and March 1916 only aggregated to 0.38 inches.

Owing to low supply in the river, the water failed to enter the canals on 2nd September, but on account of an abnormal flood in the river in October the canals again flowed for four days and after that ceased to flow finally for the rest of the year.

5. The irrigation of the year compares as follows with the averages of the two previous triennia :—

SEASON.	AVERAGE FOR THREE YEARS ENDING		Actual for 1915-16.
	1911-12.	1914-15.	
	Acres.	Acres.	Acres.
Kharif	11,287	18,786	9,429
Rabi	20,797	24,695	17,330
Total	32,084	43,481	26,759

The area successfully matured and assessed was 23,017 acres as against 40,953 acres, the average of the previous triennium the decrease being due to unfavourable rainfall and to the inadequate river supply, as well as to the heads of the Eastern and Western Station Canals not having worked satisfactorily on account of a change in the position of river during flood and consequent silting-up of the feeding creek.

Revenue was remitted on 3,712 acres; of this 862 acres were due to short supply in July, August and September 1915, 202 acres were damaged by hail stones, 1,076 acres remitted on account of general remissions on the cotton crop, and 1,572 acres for bad seeds, poor soil, bad germination, insects and blight.

6. The gross revenue realized amounted to Rs. 92,201 and working expenses to Rs. 52,887, leaving a nett revenue of Rs. 39,314, which is equivalent to a return of Rs. 18.20 per cent. on the Capital outlay to date.

Details compare as follows with the averages for the preceding triennium :—

Details.					Average 3 years ending 1914-15.	Actual, 1915-16.
					Rs.	Rs.
Receipts direct	...	...	...	...	90,282.	77,094
„ indirect	...	...	...	...	17,704	15,107
		Total	...	...	1,07,986	92,201
Working expenses	...	...	...	...	59,024	52,887
Net revenue	...	...	...	...	48,962	39,314
Percentage of net revenue on capital	...	...	...	...	22.68	18.20

The decrease under revenue is due to less irrigation and larger remissions owing to the unfavourable season.

GHAGGAR CANALS.

1. The expenditure amounting to Rs. 19 was incurred on B—Land. Capital Account. This brought the total cost to date to Rs. 6,61,571 (Rs. 3,76,129 under “Imperial” and Rs. 2,85,442 under “Contribution”).

2. Expenditure was Rs. 2,908 under Extensions and improvements. “Imperial” and Rs. 1,193 under “Contribution,” and was incurred on petty works of improvement.

3. Expenditure was Rs. 11,643 under “Imperial” and Rs. 2,548 under “Contribution” as compared with Maintenance and repairs. Rs. 7,075 and Rs. 1,722, respectively, for the preceding year. The excess was chiefly due to heavy repairs to the lake protective pitching and to the Head Regulators and Escape Head.

4. (a) *Kharif*.—Rain started in June and was general between 6th and 21st June in both the British and Bikaner areas. Nature of seasons and state of demand and supply. The fall of 1.6 inches recorded on 14th June 1916 at Mojukhera was the heaviest in British territory. July was practically dry. There were light showers in British and Bikaner areas during August and September. The rainfall on the whole was considerably in defect on the Ghaggar area. Water reached Otu weir on 18th June but the lake supply remained very low and the channels could not be properly opened till the middle of August and then only with very low discharge for a few days only. The lake did not fill till 20th September, hence the kharif irrigation was practically a failure. The supply in the lake was good at the end of September and the first half of October, and a good rabi crop was, therefore, put down.

(b) *Rabi*.—The lake was unwatered by 1st November to permit of sowings in the lake basin. There was no rain during the rabi season, except light showers. The largest amount of rainfall recorded was 0.5 inches at Kamrani in Bikaner area on 1st February.

(c) *Rainfall*.—The average rainfall of all stations for the year was—

British 3.15 inches.

Bikaner 2.2 „

against British 16.50 inches, Bikaner 19.65 inches during 1914-15. Water was escaped down the river from 22nd to 27th September and on 3rd and 4th October only. The Northern and Southern Canals ran for 27 and 30 days during kharif and 23 and 26 days during rabi with average discharges of 133 and 207 cusecs, respectively.

5. The following table shows the area irrigated in British and Bikaner Territories during the past 5 years ending 1915-16. The area in British territory includes area assessed by the Civil Department.

	1911-12			1912-13.			1913-14.			1914-15.			1915-16.		
	Crop		Total.	Crop		Total.	Crop		Total.	Crop		Total.	Crop		Total.
	British.	Bik. terr.		British.	Bikaner.		British.	Bikaner.		British.	Bikaner.		British.	Bikaner.	
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
	3,902	Nil	3,902	2,825	2,205	20,080	9,690	5,115	14,805	9,130	1,063	10,993	4,218	12	4,230
Kharif.															
	2,691	Nil	2,691	17,527	4,014	22,141	3,035	1,720	4,755	15,060	6,103	21,463	17,783	3,156	20,939
Rabi.															
	6,593	Nil	6,593	11,352	7,79	48,631	12,725	6,935	19,660	21,790	8,066	32,150	22,006	3,168	25,174
Total.															
Total number of days canal was in flow.	Northern Ghaggar Canal.		117	46			73			102			50		
	Southern Ghaggar Canal.		117	32			80			100			56		

The figures for 1913-14 to 1915-16 did not include the area under "palaver" whereas the areas for the previous years included it. The "palaver" area excluded in 1915-16 was 7,198 acres which were watered but not sown and on which no water rates were charged. Including "palaver" area, therefore, the

total area was 32,372 acres. The land under fluctuating assessment is not subject to water rates but the canals receive a credit for any fluctuating revenue in excess of Rs. 37,000 per annum. As, however, this sum is very seldom even nearly approached the canals receive no revenue whatsoever for the greater part of the irrigation which they do.

The amount of occupier's rate assessed was Rs. 958 in kharif and Rs. 17,550 in rabi and the rate per acre assessed works out to Rs. 3.1 and Rs. 2.4, respectively.

6. The operation of the year resulted in a loss of Rs. 18,473 which is equivalent to 4.91 per cent. on the Capital outlay compared with a loss of Rs. 23,134 equivalent to 6.15 per cent in the previous year. So long as the canals receive no revenue for the greater part of the irrigation which they carry out, they cannot be expected to be remunerative.

The greater part of the revenue for the irrigation is credited to Civil Department and not to the Irrigation Department

7. (a) The result of the year's working would have been satisfactory if all irrigated land paid water rate. The canals were in flow for 53 days only during the year against 120 days in 1914-15 and 100 days in 1913-14.

General remarks.

The area remitted in British Territory was 40 acres in kharif and 149 acres in rabi. The approximate value of crops matured on the Ghaggar Canal in British Territory amount to Rs. 5,67,751 against Rs. 10,72,727 in the previous year. The principal crops grown are wheat and rice.

(b) *Nature and scope of contemplated new work and progress made on the preparation of new projects.*—The work of raising of the reservoir level by 3 feet which was held in abeyance in 1914-15 was again taken up during the year, but the final decision will probably depend on what areas will be taken up by the Bhakra storage dam scheme now under investigation.

(c) *Working Canals in the Bikaner State.*—Water was given to the Bikaner State in accordance with the indents received, but as usual these indents were far below the share of the water due to the State. It is believed that the State Channels are in such inefficient order that they are incapable of holding large supplies without breaching. It is also stated that a great deal of the water supplied was really turned out into the Talwara Jhil and was not used for irrigation at all; but as the whole supervision of channels and revenue within State territories is done by State officials, no definite information on the failure to get better rabi irrigation results can be given:—

The following details of irrigation have been supplied by the State—

Canals.	1915-1916.			1914-15.		
	Kharif.	Rabi.	Total.	Kharif.	Rabi.	Total.
Northern Canal ...	12	1,999	2,011	1,223	4,984	6,207
Southern Canal ...		1,157	1,157	440	1,419	1,859
Total ..	12	3,156	3,168	1,663	6,403	8,066
Flow ...	12	3,156	3,168	1,663	6,403	8,066
Lift ...	...	...	...	...	...	...
Total as above ...	12	3,156	3,168	1,663	6,403	8,066

The following table shows the working of the Canals as reported by the State :—

Particulars.						1914-15.	1915-16.
<i>Receipts.</i>							
Water rate	...	...	...	...	...	20,958	8,408
Miscellaneous	...	...	...	...	...	176	154
Total						21,133	8,562
<i>Working Expenses.</i>							
Establishment	...	...	...	...	...	1,784	2,913
Other Expenses	...	...	...	...	...	6,313	8,908
Total						8,097	11,821
Profit or Loss (Net)	...	...	...	...	...	+ 13,036	— 3,259
Total as above						21,133	8,562

Adding Rs. 4,764 debited to the Bikaner State on account of share of expenditure on the Ghaggar Canals it appears that the State suffered a loss to the extent of Rs. 8,023 on the year's operation against a profit of Rs. 9,333 in 1914-15 and Rs. 404 in 1913-14.

LOWER SUTLEJ INUNDATION CANALS.

1. The canals are classified under "43 Minor Works and Navigation" for which no Capital account is kept.

Capital account.

2. Expenditure amounted to Rs. 54,227 mainly incurred on the following works :—

Extensions and Improvements.

Diversion [of the Muhammadwah Canal above Abanwah syphon.
Second diversion of the Muhammadwah Canal.

Diversion of the Mailsi Canal near Salol, and converting the Sahuka Bridge over the Hajewah Canal into a regulator.

With the exception of the last mentioned these works were necessitated by river incroachments.

3. Expenditure amounted to Rs. 1,11,535 against Rs. 1,24,449 during the preceding year.

Maintenance and repairs.

4. The year was remarkable for scanty rainfall; that recorded at Lodhran was 0.51", (0.38" in kharif and 0.13" in rabi, against 7.43" and 2.05" respectively, in the preceding year.) In the Mailsi Sub-Division only one light shower occurred in June, and, apart from this, no appreciable rain fell throughout the year.

Nature of seasons and state of demand and supply.

As may readily be understood the demand for canal water was very keen. On the whole, the supply of water in the Sutlej was satisfactory and there was a marked absence of heavy floods.

The following statement shows the dates of opening and closing of the canals:—

Name of canal.	DATES OF		No. of days canal was in flow.
	Opening.	Closing	
Hajiwhah	11th May 1915	10th October 1915	151
Mailsi	13th May 1915	4th December 1915	199
Muhammadwah	2nd May 1915	15th Nov. 1915	198
Bahawalwah Lodhran	11th July 1915	21st October 1915	179

The Hajiwhah Canal failed early on account of the river breaking away from the off-take and leaving it high and dry. The Mailsi Canal suffered from a breach in August, which was closed with some difficulty. The Muhammadwah Canal worked very satisfactorily, not only meeting its own requirements, but, in addition, supplementing the supply in the Bahawalwah Lodhran Canal by means of the cut which connects the two channels.

5. The following table compares the areas irrigated and matured in 1915-16 with the averages of the preceding triennium:—

Season.	Canal.	AVERAGE FOR 3 YEARS ENDING 1914-15.		1915-16.	
		Irrigated.	Matured.	Irrigated.	Matured.
		Acres.	Acres.	Acres.	Acres.
Kharif ...	Hajiwhah ...	10,069	13,223	12,465	7,460
	Sutlej Canals ...	125,368	106,368	109,870	81,208
	Total ...	141,877	119,611	129,335	91,668
Rabi ...	Hajiwhah ...	28,019	25,475	14,944	13,767
	Sutlej Canals ...	131,957	126,193	146,293	136,378
	Total ...	159,976	151,668	161,237	150,145
	GRAND TOTAL ...	301,363	271,279	283,572	241,813

The total area which failed to mature was 41,759 acres, viz., 30,667 in kharif and 11,092 in rabi. This is greater than that in the year 1913-14 and 1914-15 but is less than the area remitted during any of the years 1901-02 to 1912-13. Failure was due largely to deficient rainfall.

6. The total income from all sources was Rs. 6,21,610 against Rs. 6,31,012 in 1914-15, and the total expenditure Rs. 2,83,454 against Rs. 2,74,494 in the preceding year. The net income amounted to Rs. 3,36,156.

The uncollected balance of assessment of occupier's rate amounted to Rs. 177 only.

7. The gross area irrigated, though less than that of the preceding year was greater than any of the years 1909-10 to 1913-14. The results of the year's operations were, on the whole, satisfactory.
- General remarks.

The question of safeguarding the Sutlej Valley Railway from River inundation in the neighbourhood of Jamlera and Joya was investigated and some works were carried out on behalf of the Railway Department.

No new works are being undertaken on the Lower Sutlej series beyond those required to maintain the *statu quo* as these canals will probably eventually come under the scope of the Sutlej Valley Project.

CHENAB INUNDATION CANALS.

- Capital account, 1. No Capital account is kept for these canals. They are classified under "43—Minor Works and Navigation."
2. Expenditure of Rs. 11,214 against Rs. 12,430 in 1914-15, was incurred mainly on constructing the Qutabpur distributary from the Wali Muhammad Canal, and acquiring land on the Wali Muhammad Canal.
- Extensions and improvements.
3. Expenditure was Rs 1,05,891 against Rs 1,20,426 in the preceding year, incurred on ordinary silt clearances of canals, repairing breaches and strengthening banks of canals.
- Maintenance and repairs.
4. The total rainfall at Multan and Shujabad was 0.61 and 0.85 inches, respectively, against 10.10 and 10.95 inches during the preceding year. The Chenab river was very low both at the beginning and end of the season, and high floods were conspicuous by their absence.
- Nature of reasons and state of demand and supply.

The following statement shows the dates of opening and closing of canals:—

Name of canal.	DATES OF	
	Opening.	Closing.
Matithal	5th May 1915	14th September 1915
Daurana Langana	28th April 1915	12th September 1915
Wali Mohammad	29th April 1915	11th September 1915
Sikanderabad	18th April 1915	26th October 1915
Gajuhatta... ..	19th April 1915	20th October 1915
Balochanwah	11th May 1915	3rd September 1915

The canal requiring water earliest is the Sikanderabad, as it has more indigo than any other and also irrigates a large acreage of garden lands. It was opened in April as usual and worked very satisfactorily. The Gajuhatta, which depends on the Sikanderabad for its supply, also worked excellently. The Balochanwah was opened late and failed early owing to silting up of the creek from which it draws its supply. The Matithal was a failure due to silting up of the head. The off-take of this canal is very unfavourably situated, at the confluence of the Chenab and Ravi. It cannot be carried further upstream for this reason. The Wali Mohammad, which irrigates a large number of gardens in the neighbourhood of Multan city, and the Daurana Langana canal had to be

worked in rotation as the supply was insufficient for both. These canals have not been entirely satisfactory of recent years and, as the off-take is situated near the confluence of the Chenab and Ravi, there is little scope for remedial measures.

5. The following table compares the areas irrigated with the averages of two previous triennia :—

Season.	AVERAGE OF THREE YEARS ENDING		1914-15.	1915-16.
	1911-12.	1914-15.		
Kharif	99,819	100,548	103,977	84,107
Rabi	90,481	99,582	115,421	86,378
Total	190,300	200,130	219,398	170,485

The total area which failed to mature was 28,633 acres, viz., 26·53 per cent. of the total area irrigated during kharif and 7·31 per cent. in rabi against 17·40 and 6·12, respectively, in the preceding year. These large percentages are mainly to be accounted for by the low river and scanty rainfall.

6. The total income from all sources was Rs. 4,71,364 against Rs. 4,85,893 in 1914-15, and the total expenditure was Rs. 1,72,292 against Rs. 1,87,476. The net income was, therefore, Rs. 2,99,072.

The uncollected balance of assessment of occupiers' rates was Rs. 3,205.

7. The area irrigated was slightly below the average. Rainfall was practically nil but in spite of this fact crops were remarkably good, the wheat outturn being better than that of the previous year.

No new works of any magnitude are contemplated pending further orders regarding the Haveli Project.

The effect of the abstraction of water from the Jhelum and Chenab rivers for the Triple Canals is receiving attention.

MUZAFFARGARH INUNDATION CANALS.

1. No capital account is kept for these canals. They are classified under 43—Minor Works and Navigation and Agricultural Fund.

2. The expenditure amounted to Rs. 24,170 against Rs. 36,026 in the preceding year and was incurred mainly on completing and extending the piping and remodelling of channels, building new regulators, falls, stop-dams, profile walls, remodelling old bridges and digging new subsidiary feeders and heads for canals.

In addition to the above, Rs. 9,859 were spent from the "Agricultural Fund" on the extension and strengthening of bunds and completing works in progress at the end of the preceding year.

3. The expenditure amounted to Rs. 1,96,207 against Rs. 2,14,570 during 1914-15 and was spent on the ordinary Maintenance and repairs. silt clearances of canals, repairing breaches, strengthening and raising banks and bunds and improving supplies in channels.

In addition to the above Rs. 17,233 were spent from the "Agricultural Fund" on repairs to rest-houses and to the Puran Tie Bund.

4. Rainfall was very deficient throughout the year. The rivers were abnormally low and there were no high floods. Nevertheless a good steady supply was maintained in all the canals except the Ganesh (from the Chenab) and the Suleman (from the Indus). The failure of the Ganesh was due to the silting of the feeder and there was difficulty in maturing the kharif. In the Suleman, the supply was short at the beginning of the season owing to heavy erosion and consequent shoaling of the feeder. The Kot Sultan had an excellent supply throughout and in consequence it irrigated an area greater than usual and matured all but 2.4 per cent., against 10.7 of the year 1914-15.

The following statement gives the period during which the canals remained in flow :—

Name of Canal.		Dates of opening.	Dates of closing	Number of days canal was in flow.
Indus Series	Kot Sultan ...	29th April 1915 ...	23rd December 1915...	239
	Magasson ...	5th May 1915 ...	15th October 1915	164
	Maggi ...	5th May 1915 ...	15th October 1915 ...	164
	Ghuttu ...	2nd May 1915 ...	15th October 1915 ...	167
	Puran ...	28th April 1915 ...	9th November 1915 ...	196
	Suleman ...	2nd May 1915 ...	10th October 1915 ...	162
Chenab Series	Karata ...	4th May 1915 ...	6th September 1915...	125
	Ganesh ...	5th May 1915 ...	15th September 1915	132
	Taliri ...	9th May 1915 ...	21st September 1915.	134

5. The following statement compare the areas irrigated during 1915-16, with the averages of the two previous triennia :—

Season.	AVERAGE FOR THREE YEARS ENDING 1911-12			AVERAGE FOR THREE YEARS ENDING 1914-15.			1915-16.		
	Matured area.	Failed area.	Percentage of kharaba.	Matured area.	Failed area.	Percentage of kharaba.	Matured area.	Failed area.	Percentage of kharaba.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Kharif ...	130,614	24,883	15.4	133,608	24,205	15.3	126,751	11,228	8.1
Rabi ...	199,185	13,984	6.6	203,370	13,607	6.2	223,233	14,183	5.9
Total ...	335,699	38,867	10.4	342,044	37,872	10.0	351,984	25,411	6.7

Although the area during the year fell short of that irrigated in 1914-15, the area matured was greater. A satisfactory feature of the season's operations

is the low percentage of failed area, *viz.*, 6·7 per cent. against 14·0 per cent. of the preceding year and 10·4 per cent. of the previous triennium. The total area irrigated during rabi 1915-16 is the highest on record.

6. The total revenue collected amounted to Rs. 6,46,213 against Rs. 6,39,013 in 1914-15, and the working expenses to Rs. 3,57,977 against Rs. 3,90,082. The net revenue amounted to Rs. 2,88,236.

Financial results based on collections.

The uncollected balance of the assessment of occupier's rate was Rs. 187 only.

7. The total area irrigated was the third largest and the area matured the second largest on record while the failed area was lower than that of any previous year since 1901-02. The results of the year's working are, therefore, eminently satisfactory.

General Remarks.

There was a marked reduction of swamping, largely due to the absence of high floods in the Indus.

The Sanawan drain, to which reference was made last year, continues to work well and is proving a useful object lesson to the people of the value of drainage. The Tall Masti and Sindhri drainages have been cleared and improved with satisfactory results.

The people are inclined to be blind to their own interests and to resent attempts to curtail the too lavish supply of water to tracts, liable to deterioration on account of rise of sub-soil water level. As they put it themselves, they prefer to die from drowning than from thirst. Fortunately the winter period, during which canals are closed and rivers are low, goes for to aid these lands in recovering from over saturation.

Satisfactory progress continues to be made in the substitution of iron pipes for open cuts and the cultivators at the tails fully appreciate the benefits derived from this procedure.

A new feeder for the Suleman canal from the Indus was dug during the year at a cost of Rs. 15,000, which, it is hoped, will greatly improve the supply of this canal.

SHAHPUR (PROVINCIAL) INUNDATION CANALS.

- | | |
|-----------------------------|---|
| Capital amount. | 1. No capital account is kept for these canals. |
| Extensions and Improvement. | 2. No expenditure was incurred during the year. |
| Maintenance and repairs. | 3. Rupees 19,349 was spent on maintenance and repairs, and on silt clearance. |

The rainfall for the year was a failure, being only 3·43 inches as against 24·43 inches in the preceding year.

Nature of seasons and state of demand and supply.

Demand for canal water was naturally very keen. Supply in the river was insufficient.

The dates of opening and closing the canals were as follows :—

		Opening.	Closing.
Raniwah	..	... 21st April 1915	4th October 1915
Corbynwah	...	... 19th April 1915	10th September 1915

The corresponding dates of opening and closing averaged over the preceding 21 years were as follows :—

	Opening.	Closing.
Raniwah Canai	15th April 1915	14th September 1915
Corbynwah,,	17th April 1915	12th September 1915

The Raniwah opened a week later and closed 19 days later than the average dates of the past whilst the Corbynwah opened 2 days later and closed 2 days earlier than the past average.

5. The area irrigated compares as follows with the averages of the two preceding triennia :—

Season.			Average of three years ending 1911-12.	Average of three years ending 1914-15.	Year 1915-16.
			Acre.	Acre.	Acre.
Kharif	...	...	14,505	20,660	4,527
Rabi	...	...	8,952	10,351	14,367
Total	..	..	23,457	31,011	18,894

The figures for the kharif and rabi crops are not comparable with the averages of the two previous triennia because Executive Engineer, 1st Division, Lower Jhelum canal, transferred the whole kharif irrigation of grass to the rabi *khatauni* so as to have only one assessment *kha ra* and *khatauni* for the year instead of two, but as this procedure was against the orders laid down in rules 20 and 21 of Sir James Wilson's rules for the assessment on Shahpur Canals, orders have been issued to the Executive Engineer to comply with the above rules infuture.

The considerable falling off of area from the averages of the last two triennia is due to the shortage of river supply and lack of rainfall.

Revenue was remitted on 1,164 acres (689 acres under tenancy rules and 475 acres for bad germination and bad cultivation).

6. The revenue receipts and expenditure of the year compare as follows with the figures of the previous triennium :—

Details.			Average, triennium 1912-15.	Year 1915-16.
			Rs.	Rs.
Total assessment (direct and indirect)	...	...	61,553	34,241
Receipts (direct and indirect)	...	...	58,218	36,350
Working expenses	...	...	34,102	40,953
Net revenue	...	...	24,116	—4,594

There was a loss of Rs. 4,594 on the year's working which is due to lack of supply and rainfall during the year as well as to the fact that a considerable part of the area is irrigated free of water rates under tenancy rules. This area amounts to 689 acres.

7. (a) During the year an attempt was made to economise on working expenses by leaving gaps at the bottoms of all stop-dams where supply is headed up into distributaries, so as to keep greater silt carrying power in flow of the channels, lessen the deposit of silt there, and secure its being carried on into water-courses: the year was too abnormal for any firm conclusion to be drawn.

General Remarks.

(b) Irrigation throughout the system is by means of open cuts in the banks; the substitution of outlets has never been attempted as it is considered better not to hinder the free flow off of flood supplies; but as opportunity arises for doing so, with the consent and at the expense of zamindars, outlets of V form are being made here and there, consisting of a notch giving a reasonable supply with ordinary flow passing. the open shoulders of which will pass off a share of any excess during floods.

(c) The tail of the creek on which the Raniwah depends for its water-supply took a short cut to the river, leaving the Western Feeder almost dry. The river has a set on the mouth of the creek and has thrown a great silt bar across it. A new head may have to be constructed soon, for so long as the bend in the channel continues, the conditions of supply are likely to remain unfavourable.

The creeks feeding this canal have also been silting up. Data of river levels are being collected to consider the question of constructing new heads.

RAVI INUNDATION CANALS.

In the Administration Report for the year 1914-15 it was stated that the only canal doing irrigation as an Inundation Canal under this system was the Jherku Canal in the Montgomery District. During the year under review this Jherku Canal was also excluded from the operation of the Punjab Minor Canals Act (Act III of 1905) and the area irrigated from that canal was brought under the command of the Lower Bari Doab Canal working under the Northern India Canal and Drainage Act (Act VIII of 1873).

Thus the Ravi Inundation Canals now cease to exist.

SEMLA ;
The 26th September 1916. }

T. R. J. WARD,
Chief Engineer, Irrigation Works, Punjab.

GOVERNMENT OF THE PUNJAB.
PUBLIC WORKS DEPARTMENT.

IRRIGATION BRANCH.

PART II.

STATISTICAL STATEMENTS FOR THE YEAR 1915-16.

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STATEMENT OF CANALS

PARTICULARS.	MAJOR IRRIGATION						
	Western Jumna Canal, including Sirsa Branch, British and Patiala.	SIRSA CANAL.		Upper Bari Canal.	Lower Bari Canal.	Upper Chenab Canal.	Lower Chenab Canal.
		British.	Patiala, Kanhka and Jind States.				
1	2	3	4	5	6	7	8
Source of supply	Jumna.	Sirsa.		Ravi.	Ravi and Chenab.	Chenab.	Chenab.
Minimum discharge of river { Ever recorded, cubic feet per second	2,167	2,780		1,272	220	3,884	3,884
During the year " "	2,167	3,385		1,975	220	4,384	4,323
Maximum discharge of canal. { As designed " "	6,178	3,840	2,160	5,000	6,750	11,742	8,813
Now authorised " "	6,430	5,431	3,080	6,700	...	11,074	10,730
During the year " "	6,121	8,741		6,700	1,970	9,817	10,093
Average annual rainfall Inches	(a) 29.68	(b) 18.25	(b) 18.11	(a) 21.13	(a) 34.93	(c) 22.37	(c) 11.94
Gross area commanded Acres	2,735,283	2,568,132	1,954,560	1,732,560	1,661,530	1,580,859	3,323,210
Culturable area commanded	2,315,077	2,273,467	1,629,000	1,594,346	1,291,198	1,501,848	2,633,800
Area proposed to be irrigated annually. { By complete project " "	893,565	763,442	420,000	821,665	823,004	631,410	1,496,568
At present	893,565	750,000	420,000	821,665	751,055	539,936	1,496,568
Sanctioned Estimate—							
Direct charges Ra.	1,05,64,309	2,29,18,999	1,44,67,175	1,57,23,565	2,16,69,940	3,61,31,593	2,55,81,175
Indirect charges	7,50,277	12,73,123	...	...	6,58,432	12,25,441	6,31,791
Interest during construction... ..	34,27,795	87,03,620	...	...	34,29,947	71,03,563	66,50,277
Total Estimate	1,47,32,381	3,39,95,745	1,44,67,175	1,57,23,566	2,57,69,319	4,44,60,592	3,31,63,243
Expenditure to end of 1915-16. { Direct charges	1,80,42,825	2,43,45,111	1,43,02,035	2,11,30,492	2,06,66,984	3,36,24,503	3,10,82,599
Indirect charges	8,10,188	12,11,417	...	7,42,005	4,15,028	6,77,090	7,63,561
Interest during construction, " "	32,08,961	85,45,401	...	1,64,97,038	32,06,967	71,68,668	64,52,313
Total Expenditure	2,20,61,977	3,41,01,959	1,43,02,005	3,83,69,536	2,42,88,959	4,16,90,261	3,82,49,093
Works as now sanctioned—							
Main Canals, irrigation Miles	82	39		30	131	170	40
Branch Canals	243	279	219	295	...	...	387
Branch Feeder Canals ... ..	...	...	...	16	...	...	...
Lower Chantang Nala Canal	4	...	...	...	...	...	...
Distributaries, irrigation	1,880	1,589	1,811	1,564	1,050	1,134	2,287
Lower Chantang Nala Canal Distributaries " "	45	...	...	...	...	...	...
Of above—							
Navigable Channels	222	92	46	...	...	...	...
Works completed to end of 1915-16—							
Main Canals, irrigation	82	39		30	131	170	40
Branch Canals	243	279	219	295	...	...	387
Branch Feeder Canals ... ..	...	...	...	16	...	...	...
Lower Chantang Nala Canal	4	...	...	...	...	...	...
Distributaries, irrigation	1,880	1,589	1,811	1,564	1,051	1,051	2,287
Lower Chantang Nala Canal Distributaries " "	45	...	...	...	...	...	...
Of above—							
Navigable Channels	222	92	40	...	...	...	...

Note.—Miles shown in this statement

- *Salampur and
 (a) Average rainfall for the last 37 years
 (b) Ditto ditto 32 do.
 (c) Ditto ditto 28 do.
 (d) Ditto ditto 14 do.
 (e) Ditto ditto 9 do.

A.
IN THE PUNJAB.

WORKS.				MINOR IRRIGATION WORKS.							
Upper Jhelum Canal.	Lower Jhelum Canal.	Upper Sutlej Canals.	Sidhni Canals.	Indus Irrigation Canals.	Shahpur (Imperial) Irrigation Canals.	BHAGGAH IRRIGATION CANALS.		Lower Sutlej Irrigation Canal.	Chenab Irrigation Canals.	Muzaffargarh Irrigation Canals.	Shahpur (Provincial) Irrigation Canals.
9	10	11	12	13	14	15	16	17	18	19	20
Jhelum	Jhelum.	Sutlej.	Ravi.	Indus.	Jhelum.	Bhag.		Sutlej.	Chenab.	Indus and Chenab.	Jhelum.
Not reported	4,772	3,001	The river runs dry.	9,430	4,772	The river runs dry		3,001	3,432	12,871	4,772
	2,795	4,318		25,074	2,795			Not recorded.	5,000	Not recorded.	2,795
8,500	3,500	4,935	2,120	Not known	1,100	1,000	500	5,555	5,103	7,531	933
Not reported	K 3,750 R 3,750	...	2,605	...	1,100	1,100	600	...	...	...	932
	3,886	32,367	2,615	6,982	636	1,162	267	7,391	5,713	10,590	522
(d) 11.75	(f) 9.85	(g) 6.63	(A) 5.56	(g) 14.31	(f) 9.4	(f) 12.52	(A) 5.33	(A) 0.04	(e) 5.15	(g) 13.51	
538,106	1,393,399	999,730	380,077	879,105	67,087	85,324	41,304	918,208	453,473	771,311	60,928
563,208	1,162,466	899,836	344,159	422,923	62,051	72,978	31,618	995,152	360,313	674,932	53,255
341,950	668,921	319,637	150,000	305,760	47,750	40,834	17,309	250,000	200,000	350,000	27,000
327,928	668,921	329,184	170,000	305,760	42,000	46,831	17,809	250,000	200,000	350,000	21,170
4,324,332	1,83,95,782	13,36,375	8,62,393	6,87,806	2,05,933	3,59,692	3,07,365	...	...	...	...
10,56,277	5,08,246	46,400	37,062	19,720	9,951	10,028	...	...	...	...	...
73,29,746	82,58,554	...	39,095	...	...	...	...	...	...	...	...
5,16,17,307	2,22,82,542	13,62,778	10,38,561	7,07,635	2,15,914	3,69,720	3,07,365	...	...	...	...
4,15,81,296	1,53,76,641	17,17,351	12,90,744	28,93,360	2,05,933	3,65,937	2,85,412	...	...	...	...
7,79,823	3,89,121	1,01,027	40,217	79,940	9,981	10,792	...	...	...	...	...
71,29,183	67,65,289	8,97,090	2,12,511	0,86,207	...	...	...	...	...	...	...
4,94,80,303	2,27,31,051	27,06,471	15,13,472	36,59,518	2,15,914	3,76,129	2,65,412	...	...	...	...
83	39	326	68	443	53	44	53	400	207	418	39
5	194	...	...	...	13	...	...	...	...	...	18
...
...
...	1,011	395	252	303	72	31	...	318	63	737	52
...
...
...
83	39	326	68	413	53	44	53	400	207	418	39
5	112	...	...	...	13	...	...	...	...	...	18
...
...
...	1,911	395	252	303	72	34	...	318	63	737	52
...
...

are canal miles of 5,000 feet.

Faridnagar Channels.

(f) Average rainfall for the last 23 years.

(g) Ditto ditto 27 do.

(h) Ditto ditto 49 do.

(i) Ditto ditto 17 do.

(j) Ditto ditto 13 do.

(k) Ditto ditto 6 do.

I. B

CAPITAL ACCOUNT OF THE IRRIGATION WORKS IN THE PUNJAB PROVINCE FOR AND TO
END OF 1915-16.

1	DIRECT CHARGES (NET EXPENDITURE.)					Indirect charges exclusive of interest.	Total charges excluding interest.	Simple interest.
	Works.	Establishment.	Tools and Plant.	Suspense.	Total.			
2	3	4	5	6	7	8	9	
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
40.—CAPITAL EXPENDITURE ON IRRIGATION WORKS NOT CHARGED TO REVENUE.								
WESTERN JUMNA CANAL INCLUDING STANA BRANCH.								
To end of previous year	1,31,12,400	32,24,578	2,17,677	2,16,715	1,58,07,773	8,09,184	1,56,76,470	2,33,17,616
During the year	14,692	3,284	225	— 2,057	14,627	1,039	15,489	6,83,095
Contribution { To end of previous year	0,00,168	2,50,643	23,768	—	11,50,478	—	11,50,478	—
{ During the year	—	—	—	—	—	—	—	—
SHARDA CANAL—IMPERIAL.								
To end of previous year	1,73,34,842	46,20,771	21,06,037	2,19,871	8,48,91,141	32,11,273	2,54,92,418	3,27,07,702
During the year	64,274	1,244	317	— 33,889	63,920	174	64,141	6,430
Contribution { To end of previous year	55,77,749	13,64,674	12,01,313	—	1,42,44,181	—	1,42,44,181	—
{ During the year { Patiala	41,619	4,773	110	—	46,502	—	46,502	—
{ Nabha	4,657	471	31	—	5,159	—	5,159	—
{ Jind	4,076	47	10	—	4,133	—	4,133	—
UPPER BARI DOAB CANAL.								
To end of previous year	1,67,11,623	21,25,771	9,05,639	7,47,628	3,07,00,667	7,22,755	2,15,22,355	2,56,49,078
During the year	3,34,650	14,353	9,101	— 1,50,443	3,38,598	9,237	3,19,152	7,27,855
LOWER BARI DOAB CANAL.								
To end of previous year	1,47,97,344	21,40,077	15,33,678	10,74,713	1,97,44,811	3,78,160	2,01,11,011	25,04,794
During the year	6,74,978	2,65,027	— 825	— 47,311	6,27,123	28,419	6,20,931	7,09,171
UPPER CHANAB CANAL.								
To end of previous year	2,55,04,145	20,21,949	16,57,421	8,25,427	3,21,30,047	8,27,217	3,29,57,264	69,41,796
During the year	9,24,673	2,23,643	17,270	— 74,030	11,94,458	62,673	12,57,131	11,46,472
LOWER CHANAB CANAL.								
To end of previous year	2,41,93,210	43,97,125	6,31,513	6,12,451	3,02,40,329	7,10,620	3,12,00,793	2,35,98,441
During the year	1,04,642	2,43,227	1,837	— 1,30,410	92,779	3,962	93,722	10,50,007
UPPER JUMNA CANAL.								
To end of previous year	2,94,10,673	41,09,423	45,37,211	12,42,844	3,97,00,235	7,21,041	4,04,17,379	77,19,174
During the year	17,20,694	3,04,173	— 84,192	— 76,074	16,61,401	42,779	16,14,170	14,31,029
LOWER JUMNA CANAL.								
To end of previous year	1,35,97,716	21,87,027	3,02,407	4,31,513	1,65,12,663	2,68,621	1,69,51,482	73,10,132
During the year	17,728	3,453	710	— 7,593	13,623	62	14,330	6,40,921
UPPER SATLJ INDIAN CANALS.								
To end of previous year	13,64,793	3,12,487	21,594	21,874	17,00,880	1,00,747	18,07,770	21,87,038
During the year	9,718	1,723	114	323	11,858	275	12,133	69,439
STANWAT CANALS.								
To end of previous year	9,45,638	2,63,020	38,779	44,035	12,91,510	47,717	13,31,027	12,10,425
During the year	—	—	—	— 825	— 169	—	— 825	44,535
INDUS IRRIGATION CANALS.								
To end of previous year	22,13,474	4,22,706	53,744	26,003	27,16,927	76,204	27,23,733	18,42,776
During the year	1,51,222	22,818	1,787	— 11,220	1,64,597	5,027	1,51,871	97,913
Total Imperial { To end of previous year	16,57,77,221	2,97,28,794	1,20,23,221	14,97,040	20,89,77,490	60,12,474	21,21,31,672	17,62,31,228
{ During the year	42,49,691	9,67,524	— 73,700	— 8,19,757	44,66,223	1,50,167	44,51,353	72,27,423
Total Contribution { To end of previous year	1,05,77,810	36,06,810	12,25,103	—	1,54,00,729	—	1,54,00,729	—
{ During the year	63,372	6,351	171	—	69,874	—	69,874	—
43.—MINOR WORKS AND NAVIGATION.								
SHARDA CANAL.								
To end of previous year	1,76,033	57,520	613	—	2,34,166	9,931	2,15,614	—
During the year	—	—	—	—	—	—	—	—
GHAGGAR CANAL.								
Imperial { To end of previous year	2,01,258	61,797	7,823	—	3,65,316	10,793	3,76,110	—
{ During the year	19	—	—	—	19	—	19	—
Contribution { To end of previous year	2,23,824	41,251	3,674	—	2,68,749	—	2,68,749	—
{ During the year	—	—	—	—	—	—	—	—
Total Imperial { To end of previous year	1,03,653	67,607	9,638	—	5,71,221	20,773	5,50,448	—
{ During the year	19	—	—	—	19	—	19	—
Total Contribution { To end of previous year	2,28,621	44,351	3,674	—	2,85,442	—	2,85,442	—
{ During the year	—	—	—	—	—	—	—	—
JALAPUR CANAL.								
To end of previous year	25,079	19,221	2,008	—	51,004	2,708	53,709	—
During the year	—	—	—	—	—	—	—	—

I C.

**STATEMENT SHOWING THE FINANCIAL RESULTS OF IRRIGATION WORKS IN THE
PUNJAB PROVINCE FOR THE YEAR ENDING 31st MARCH 1916.**

STATEMENT SHOWING THE FINANCIAL RESULTS OF IRRIGATION

REALIZATIONS UNDER MAIN HEADS OF

REVENUE ACTUAL RECEIPTS.

IRRIGATION.	IRRIGATION.				Navigation.	Plantation.	Water power.	Miscellaneous.	Total.	Refunds of revenue.	Gross revenue less refunds.
	Water-rate directly paid.	Share of land revenue and sale-proceeds of w. ate and other lands.	Owner's rate.	Total.							
1	2	3	4	5	6	7	8	9	10	11	12
PRODUCTIVE WORKS.											
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Western Jamna Canal, including Sirsa Branch.	Imperial ... 20,47,354	2,30,000	...	22,78,354	22,294	21,764	6,263	40,678	30,09,653	2,302	32,04,351
	Contribution ... 2,40,174	...	...	2,40,174	...	437	327	2,729	(a) 2,43,067	2,310	2,41,451
Girhind Canal	Imperial ... 28,00,250	89,651	...	28,90,901	11,019	28,574	1,17,739	1,71,913	32,28,061	744	32,27,317
	Contribution ... 21,00,707	...	...	21,00,707	6,139	12,729	49,712	24,973	22,60,270	13,618	(d) 22,46,652
Upper Bari Doab Canal	... 38,20,496	6,10,503	...	44,31,000	...	21,231	1,15,359	1,20,603	47,20,155	1,216	47,18,939
Lower Bari Doab Canal	... 4,25,070	1,20,698	...	5,45,768	...	1,405	...	4,720	5,44,169	602	5,43,407
Upper Chenab Canal	... 9,27,028	61,077	...	9,88,105	...	288	...	20,515	10,17,049	615	10,17,332
Lower Chenab Canal	... 83,58,423	74,74,490	2,417	1,58,35,322	...	22,232	14,039	50,374	1,69,23,697	747	1,69,22,950
Upper Jhelum Canal	... ..	...	...	...	...	...	...	6,261	6,261	30	6,231
Lower Jhelum Canal	... 25,60,561	14,72,343	...	40,32,904	...	7,954	50,257	31,638	41,22,663	790	41,21,873
Upper Sutlej Irrigation Canals	... 4,00,932	2,67,067	...	7,33,069	...	4,393	...	7,815	7,40,107	81	7,40,100
Bidwai Canals	... 6,18,635	2,09,370	...	8,28,004	...	380	...	6,735	8,33,129	350	8,32,779
Indus Irrigation Canals	... 1,34,001	2,60,217	...	3,95,018	...	2,857	...	18,569	4,37,843	169	4,37,175
TOTAL CANALS IN OPERATION	Imperial ... 2,27,03,431	1,07,02,333	2,417	3,36,08,182	63,303	1,14,019	2,82,696	5,45,103	3,45,57,412	7,639	3,45,69,051
	Contribution ... 24,00,971	...	...	24,00,971	6,139	13,168	50,039	27,622	25,03,937	11,631	24,92,306
WORKS FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT.											
Lower Sutlej Irrigation Canal, including Hajmoh	... 3,05,619	3,11,336	...	6,17,057	...	1,412	...	2,171	6,21,740	130	6,21,610
Chenab Irrigation Canals	... 2,04,177	2,54,190	...	4,58,367	...	1,532	...	1,425	4,71,923	201	4,71,722
Moraffgarh Irrigation Canals	... 2,07,210	3,70,234	...	5,77,444	...	5,823	...	2,557	5,86,213	...	5,86,213
TOTAL	... 7,77,043	9,45,812	...	17,23,755	...	9,070	...	6,754	17,30,679	301	17,30,167
WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.											
Shahpur Canals	... 78,910	16,107	...	95,017	...	167	...	21	95,201	...	95,201
Chaggar Canals	Imperial ... 17,538	...	...	17,538	...	...	...	2	17,540	...	17,540
	Contribution ... ..	...	...	...	...	...	...	1	1	...	1
TOTAL	Imperial ... 94,454	16,107	...	1,09,561	...	167	...	23	1,09,741	...	1,09,741
	Contribution ... ..	...	...	...	...	...	...	1	1	...	1
Productive.											
Shahpur Canals	... 20,277	6,457	...	26,734	...	...	...	615	30,350	...	30,350
Ravi Irrigation Canals	... 381	688	...	1,069	...	...	...	...	1,069	...	1,069
TOTAL	... 20,658	7,145	...	27,803	...	...	...	615	31,419	...	31,419

(a) Includes Rs. 1,706 credited to Patiala State through (b) and (c) include Rs. 20,702 and Rs. 11,800, respectively.
 (d) Includes Rs. 80,615 passed through the Administrative.
 (e) " " 2,82,036, Rs. 60,542 and Rs. 34,240 spent
 (f) " " 2,813 spent by the Bikaner State.
 (g) " " 5,107 " " " " "
 (h) " " 1 " " " " "

C.
WORKS IN THE PUNJAB PROVINCE FOR THE YEAR ENDING 31st MARCH 1916.
REVENUE AND WORKING EXPENSES.

REVENUE MANAGEMENT.					MAINTENANCE OF WORKS.															Grand total, Working Expenses.	Net Revenue.
ESTABLISHMENT.					ESTABLISHMENT.				Works.	Repairs.	Sundries.	Tools and plant.	Plantations.	Total cost of maintenance.	Total direction charges.	Indirect charges.					
Direction.	Executive.	Navigation.	Civil Officers.	Total.	Direction.	Executive.	Medical.	Total.													
19	14	19	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			
38,039	5,33,636	189	73,673	4,84,739	19,960	1,69,003	11,711	1,91,603	1,17,501	5,89,607	1,179	32,373	29,128	8,80,305	13,24,043	81,971	14,06,414	10,00,037			
193	233	...	...	239	8,111	(b) 32,539	100	37,939	21,074	(c) 51,938	—129	824	1,356	92,219	93,168	...	93,168	1,43,290	
37,349	8,47,890	314	91,833	4,80,784	13,251	63,020	11,495	83,805	1,31,640	2,99,107	16	29,488	11,026	6,77,081	11,67,863	80,909	12,38,858	19,88,468			
2,410	11,798	...	...	14,439	32,471	87,466	3,216	1,00,803	1,80,328	5,21,593	(e) 3,179	12,774	3,802	8,16,910	9,31,649	...	8,31,649	14,16,809	
49,316	3,99,093	...	1,00,033	9,58,377	12,584	71,371	9,372	80,197	96,332	5,07,514	319	14,920	34,698	7,45,067	12,63,344	89,221	13,72,865	33,45,404			
8,464	1,17,701	...	12,123	1,08,538	19,433	19,171	...	26,954	13,102	3,84,418	...	6,118	14,832	4,56,219	9,23,638	27,433	6,60,085	—87,469			
18,127	1,50,180	...	32,123	1,93,809	14,767	45,970	...	67,867	1,09,008	3,85,428	37,739	19,760	9,095	6,06,176	7,09,785	35,023	8,23,808	1,83,625			
53,385	5,53,639	...	7,47,423	8,97,823	24,976	1,46,429	23,434	1,69,671	9,70,930	9,37,171	151	96,193	69,225	23,89,029	31,19,865	1,62,139	32,71,993	1,20,60,317			
97	7,113	...	...	7,337	6,340	43,749	...	62,007	20,253	2,43,145	...	3,946	2,103	3,19,606	3,33,831	8,307	3,42,160	—3,25,916	
41,392	2,92,721	...	71,013	4,01,976	9,496	24,313	10,693	33,870	21,081	5,24,135	683	21,303	22,723	3,44,059	7,63,068	64,791	8,17,860	39,03,624			
9,609	91,245	...	12,723	1,16,670	9,383	31,616	1,681	44,879	10,760	1,69,423	...	2,823	10,074	2,77,114	3,89,004	21,704	4,00,708	3,26,395			
4,327	61,412	...	6,529	71,242	769	6,699	1,479	7,891	10,919	97,299	...	3,794	5,273	64,816	1,85,157	11,105	1,48,692	9,89,187			
2,952	37,813	...	9,174	47,218	9,012	91,999	1,039	63,989	1,17,195	1,70,549	438	1,370	19,154	3,79,105	6,35,323	19,261	4,41,583	—4,400			
1,44,250	21,33,636	603	9,08,411	33,69,819	1,37,717	7,19,931	67,451	9,16,949	19,33,232	43,01,339	60,793	1,83,923	3,87,229	69,79,363	1,03,62,170	5,83,648	1,09,31,616	2,86,53,288			
2,743	12,123	...	...	14,752	25,623	1,14,695	3,459	1,41,072	1,61,033	5,53,025	2,053	13,929	5,968	9,08,429	9,51,291	...	9,51,291	15,54,109	
5,919	23,015	...	8,914	66,932	9,471	31,147	1,691	39,170	64,227	1,06,093	—607	1,490	5,445	2,65,521	2,70,863	14,691	2,85,454	2,36,156			
5,299	14,707	...	5,379	25,293	5,910	16,410	...	21,369	13,214	92,564	...	628	9,240	1,40,023	1,95,261	7,041	1,72,202	2,92,972			
8,898	68,916	...	7,998	79,911	17,624	41,124	...	55,910	24,170	1,94,007	—9,331	3,379	11,300	2,62,114	2,40,955	17,802	3,67,977	2,68,236			
27,029	1,18,771	...	22,511	1,90,038	29,714	68,712	1,691	1,16,687	69,911	8,00,561	—9,800	5,395	23,016	8,16,291	7,79,189	39,621	8,16,723	9,23,491			
3,346	9,763	...	2,213	19,411	2,219	6,477	...	9,627	279	26,187	...	...	...	34,073	40,513	2,874	68,687	39,314
1,436	6,406	...	577	7,308	2,383	8,097	...	11,280	2,699	11,681	...	127	59	21,021	33,302	2,621	39,013	—18,473			
...	...	...	...	...	233	3,629	...	(f) 3,862	1,103	(g) 11,426	...	(h) 56	10	16,646	10,583	...	19,635	—18,634
4,802	19,169	...	2,819	23,970	4,803	11,404	...	20,007	3,109	89,711	...	123	60	60,993	82,805	5,993	88,900	20,511			
...	...	...	...	...	253	3,683	...	3,931	1,193	11,426	...	68	19	16,666	19,885	...	19,885	—16,694
2,600	5,693	...	783	8,714	2,676	7,679	...	10,254	...	19,319	...	...	...	20,683	38,297	2,058	40,853	—4,891
2,609	...	...	2	2,600	...	...	...	...	...	...	...	...	...	...	2,030	203	3,383	—1,118
4,167	5,802	...	783	10,501	2,676	7,678	...	10,254	...	19,329	...	...	...	29,583	40,287	2,040	43,360	—5,707

the Administrative Accounts of the Province,
actually spent by the British State on maintenance of State Channels,
Accounts of the Province,
by the Native States of Patiala, Nabha and Jind, respectively,

STATEMENT SHOWING THE FINANCIAL RESULTS OF IRRIGATION

Number of works.	Name of works.	GENERAL FINANCIAL RESULTS TO END OF 1915-16.								
		Mileage in operation.		Estimated cost of construction (direct and indirect).	Date of completion of work (P. W. Code 11, 1916).	Date when system first came into operation.	Total capital outlay (direct and indirect).	Accumulated arrears of interest.	Accumulated surplus revenue.	Total, sum-at-charge (column 7 + column 9).
		Main Canals and Branches.	Dist. utaries.							
1	2	3	4	5	6a	6b	7	8	9	10
		Miles.	Miles.	Rs.	Date.	Date	Rs.	Rs.	Rs.	Rs.
MAJOR WORKS.										
PRODUCTIVE WORKS.										
1	Western Jumna Canal, including Sirsa Branch.	(a) 294 (b) 35	1,679 151	1,75,48,003 11,60,478	Western Jumna Canal— 1888 Sirsa Branch— 1885	1820 1891-92	1,76,92,535 11,60,478	... ...	5,16,24,492 ...	1,76,92,535 11,60,478
2	Sirhind Canal.	318 219	1,589 1,811	2,56,06,802 1,43,99,635	1868-87 ...	1883-84 ...	2,55,56,658 1,43,02,005	... ...	1,57,35,629 ...	2,55,56,658 1,43,02,005
3	Upper Bari Doab Canal.	325	1,580	2,14,79,385	1878-79	1880-81	2,18,72,497	...	4,25,85,999	2,18,72,497
4	Lower Bari Doab Canal.	184	1,044	2,23,23,402	Still in progress	1913-14	2,10,81,692	31,81,409	...	2,42,63,401
5	Upper Chenab Canal	170	1,051	3,73,57,024	Ditto	1912-18	3,45,01,693	68,04,331	...	4,13,05,924
6	Lower Chenab Canal	427	2,287	3,18,11,847	1899-1900	"	3,17,06,780	...	11,40,60,690	3,17,96,780
7	Upper Jhelum Canal	88	...	4,42,00,559	Still in progress	1915	4,23,81,119	74,85,099	...	4,99,26,218
8	Lower Jhelum Canal	181	1,011	1,89,63,988	Ditto	1901	1,59,65,702	...	1,83,76,821	1,59,65,702
9	Upper Sutlej Inundation Canals.	326	895	17,97,414	Upper Sutlej— 1868-69	1855	18,18,381	...	30,29,427	18,18,381
10	Sidhmali Canals	68	252	12,87,874	Lower Sahagand Para. 1886	1884 1880	18,30,961	...	59,35,520	18,30,961
	Indus Inundation Canals.	443	303	29,23,413	1849-50	Prior to— 1849	29,73,305	7,40,866	...	37,14,172
	Total { Imperial ...	2,774	11,031	22,53,93,576	...	...	21,69,51,484	1,81,91,905	24,67,96,478	23,51,43,189
	Contribution	254	1,982	1,56,80,013	...	...	1,54,62,483	...	...	1,54,62,483
MINOR WORKS.										
WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.										
12	Shahpur Canal	68	72	2,15,914	1870-71	1870	2,15,914	...	10,69,246	2,16,014
13	Ghaggar { Imperial ...	44	34	3,76,129	1893-99	1897	3,76,129	10,54,885	...	14,31,014
	Contribution	53	..	2,85,442	...	...	2,85,442	...	...	2,85,442
	Total { Imperial ...	110	106	5,92,043	...	...	5,92,043	10,54,885	10,69,246	10,46,928
	Contribution	53	..	2,85,442	...	...	2,85,442	...	...	2,85,442
WORKS FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT.										
14	Lower Sutlej Inundation Canals.	400	318	...	1895	Prior to annexation of the Punjab by the British.	...	...	71,27,239	...
15	Mukaffargarh Inundation Canals.	418	737	...	1896		...	...	75,24,837	...
16	Chonab Inundation Canals.	267	63	...	1895		...	...	88,14,415	...
	Total	1,085	1,118	...	...	...	...	...	2,12,05,491	...
Provincial.										
17	Shahpur Canal	56	52	...	...	...	...	...	2,57,004	...
18	Ravi Canal	...	...	...	...	...	...	...	...	...
	Total	56	52	...	...	...	...	...	2,57,004	...

* Opened as an Inundation
(a) Includes 4 miles and (b) 45 miles
(c) Includes recoveries made by
(d) Includes Rs. 11,821 spent

C

WORKS FOR, AND UP TO THE END OF, 1915-16.

FINANCIAL RESULTS OF THE YEAR 1915-16.

Gross receipts (direct and indirect).	Working expenses (direct and indirect).	Net revenue.	Percentage on capital outlay, column 7.	Percentage on sum-at-charge, column 10.	Interest at 3.4775 per cent. on direct capital outlay to end of previous year, plus half the outlay of the year.	Net profit.	Net loss.	Area irrigated.	Percentage of working expenses to receipts (column 11 to column 12).
11	12	13	14	15	16	17	18	19	20
Rs.	Rs.	Rs.	%	%	Rs.	Rs.	Rs.	Acres.	%
30,06,361	14,05,414	16,00,937	9.04	9.04	5,85,988	10,14,951	...	761,334	46.74
(c) 2,41,461	93,155	1,48,298	12.77	12.77	...	...	— 58,963	68,749	38.58
32,27,840	12,88,858	19,88,482	7.78	7.78	8,44,273	11,44,209	...	927,059	38.38
(d) 22,46,852	8,31,043	14,15,808	9.90	9.90	...	...	— 3,67,670	580,008	38.09
47,18,969	13,72,555	33,46,404	15.29	15.29	7,27,855	26,18,549	...	1,145,234	29.08
5,53,497	6,50,985	— 97,488	.48	.40	7,02,171	...	7,99,659	283,204	117.61
10,17,888	8,33,808	1,83,525	.58	.44	11,46,872	...	9,63,347	325,062	81.96
1,59,22,240	32,71,993	1,26,50,247	39.78	39.78	10,76,007	1,15,74,240	...	2,284,079	20.55
6,294	8,42,150	— 8,85,910	.79	.67	14,11,009	...	17,45,925	...	5,488.46
41,21,788	8,17,669	33,03,924	20.7	20.7	5,40,861	27,63,283	...	834,176	19.84
7,46,103	4,09,708	3,86,395	18.50	18.50	59,438	2,76,957	...	272,746	54.91
3,32,779	1,48,592	6,86,187	51.55	51.55	44,388	6,41,849	...	270,150	17.55
4,87,175	4,41,564	— 4,409	.14	.11	97,913	...	1,02,822	235,641	101.00
3,45,89,804	1,09,31,616	2,86,56,288	10.90	10.06	72,37,028	2,00,33,516	88,12,263	7,838,775	31.60
24,88,008	9,24,201	15,64,102	10.11	10.11	...	1,64,21,205	— 4,26,633	643,757	37.14
92,201	52,887	89,314	18.20	18.20	7,151	82,103	...	26,759	57.36
17,540	88,013	— 18,478	— 4.91	— 1.29	12,686	...	81,159	22,000	205.31
1	(d) 16,585	— 16,584	— 5.81	— 5.81	...	...	4,768	3,168	...
1,09,741	68,900	20,841	8.52	1.26	19,837	32,163	81,159	48,755	81.00
1	16,585	— 16,584	— 5.81	— 5.81	...	1,004	4,783	3,168	...
6,21,610	2,85,454	3,36,158	...	...	...	3,36,158	...	233,572	45.92
6,46,218	3,57,977	2,88,238	...	...	...	2,88,230	...	377,395	3.95
4,71,384	1,72,292	2,99,072	...	...	...	2,99,072	...	170,485	36.33
17,39,187	8,15,723	9,23,464	...	...	...	9,23,484	...	831,452	46.90
36,369	40,953	— 4,594	...	...	...	...	4,594	18,894	112.63
1,270	2,383	— 1,113	...	...	...	...	1,113	...	187.63
37,829	43,886	— 5,707	...	...	...	...	5,707	18,894	115.18

Canal in 1687 and as a perennial Canal in 1692, of the Lower Chaurang Nala Canal, Native States and credited in their books, by the Bikaner State,

III C.

STATEMENT SHOWING DEMANDS AND REALIZATIONS IN THE PUNJAB PROVINCE
FOR THE YEAR 1915-16.

Name of Canal.	Balance of demands remaining un- realized at the commencement of the year.	Demand during the year.	Total.	Deducted remissions not including cash refunds.	Net amount.	Actual realizations.	Amount unrealized at the close of the year.
1	2	3	4	5	6	7	8
XXIX—MAJOR WORKS— DIRECT RECEIPTS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>Water or occupier's rate.</i>							
Western Jumna Canal ...	7,738	26,72,196	26,79,934	31,081	26,48,853	26,47,854	1,439
Sirhind Canal ...	28,908	23,77,168	30,06,094	61,309	29,44,785	28,09,289	1,35,496
Upper Bari Doab Canal ...	12,165	38,79,648	38,91,703	50,251	38,41,452	38,26,496	14,956
Lower Bari Doab Canal ...	6,223	6,21,193	6,27,419	1,95,024	4,31,495	4,26,979	4,516
Upper Chenab Canal ...	60,643	10,70,533	11,40,181	2,07,160	9,33,031	9,27,058	5,973
Lower Chenab Canal ...	6,960	83,55,833	83,62,793	5,961	83,56,832	83,59,425	—1,593
Lower Jhelum Canal ...	4,637	25,85,298	25,89,935	3,635	25,86,300	25,80,562	5,737
Sidhni Canal ...	4,250	6,15,621	6,19,871	13	6,19,858	6,16,045	3,773
Upper Sutlej Inundation Canals	4,198	4,84,865	4,89,063	17,092	4,71,971	4,66,002	5,969
Indus Inundation Canals ...	31,850	1,64,830	1,96,680	75	1,96,605	(a) 1,81,859	14,744
Total occupiers' rates ...	1,67,579	2,31,36,112	2,33,03,691	5,72,491	2,30,31,200	2,29,41,810	1,89,380
<i>Owner's rate.</i>							
Lower Chenab Canal ...	461	1,765	2,226	...	2,226	2,417	—191
XXX—MINOR WORKS AND NAVIGATION—IMPERIAL.							
Lower Sutlej Inundation Canals	26	2,72,343	2,72,368	...	2,72,268	2,72,091	177
Muzaffargarh Inundation Canals	620	2,67,002	2,67,622	169	2,67,453	2,67,246	187
Chenab Inundation Canals ...	8,811	1,93,671	2,02,482	...	2,07,342	2,04,177	3,205
Hajmoh Canal ...	...	34,423	34,428	...	34,423	34,428	...
Shalpur Inundation Canals ...	...	77,078	77,078	172	76,906	76,916	—10
Thaggar Inundation Canals ...	3	17,326	17,329	291	17,538	17,538	...
Total ...	9,460	6,67,147	6,76,607	652	6,73,955	6,72,396	3,559
PROVINCIAL.							
Shalpur Canal ...	—149	35,348	35,199	5,879	29,320	22,277	43
Ravi Canal ...	...	382	382	...	302	383	...
Total ...	—149	35,730	35,581	5,879	29,702	22,660	43

(a) Includes Rs. 48,178 on account of Dhundi Estate.

IV C.

STATEMENT SHOWING THE FINANCIAL RESULTS OF THE IRRIGATION WORKS IN THE
PUNJAB PROVINCE FOR THE YEAR 1915-16 BASED ON ASSESSMENTS OF THE YEAR 1915-16
AND PRINCIPAL RESULTS OF OPERATIONS FOR THE YEAR ENDING 31st MARCH 1916.

REVENUE ASSESSED DURING THE YEAR.														
1	2	DIRECT ASSESSED RECEIPTS.										12	13	14
		Occupier's rates.	Owners' rate.	Plantation.	Water-power.	Navigation.	Miscellaneous.	Total.	Indirect receipts.	Grand Total.				
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
PRODUCTIVE WORKS.														
Western Jumna Canal (Imperial ... including Siren Branch.	1,76,02,728	22,18,221	...	21,764	6,263	62,261	49,878	29,49,430	2,20,090	31,79,420	14,05,111	17,74,006	10.03	
Contribution	11,60,478	2,24,545	...	437	817	...	2,719	2,29,641	...	2,28,641	93,155	1,34,896	11.42	
Berhad Canal ... { Imperial ... Contribution ...	2,57,56,658	37,63,772	...	23,574	1,17,738	11,019	1,71,213	39,09,216	89,861	40,97,867	12,38,528	23,49,009	11.24	
Contribution	1,33,01,005	21,01,276	...	12,729	49,712	6,129	24,629	25,55,019	...	25,85,049	8,31,016	17,54,003	12.26	
Upper Bari Doab Canal ...	2,18,72,447	38,39,501	...	21,238	1,12,765	...	1,39,879	41,15,807	6,16,263	47,32,070	13,72,565	23,50,635	15.36	
Lower " " " " " "	2,10,81,823	1,89,719	...	1,478	...	...	6,729	4,03,718	1,26,899	6,30,617	6,80,955	—31,280	0.16	
Upper Chenab " " " "	2,47,01,653	112,44,502	...	263	...	...	29,615	112,74,215	61,077	14,36,392	8,23,838	6,01,684	1.74	
Lower " " " " " "	2,17,07,769	62,02,614	21,463	22,222	15,070	...	10,274	81,61,242	81,61,630	1,66,02,772	32,71,003	1,33,30,779	41.92	
Upper Jhelum " " " "	1,23,01,116	...	...	...	...	...	6,261	6,261	...	6,261	8,42,180	—3,26,995	—0.78	
Lower " " " " " "	1,62,65,772	27,31,418	...	7,514	20,267	...	31,339	29,03,078	14,72,313	42,75,418	6,17,059	36,57,569	21.63	
Upper Sutlej Irrigation Canals ...	16,10,241	7,51,725	...	4,703	...	...	7,845	8,61,033	2,01,273	6,59,300	4,09,703	1,55,593	8.69	
Sideinal Canals ...	12,20,761	4,70,169	...	353	...	...	6,735	4,77,503	2,00,329	6,99,632	1,10,599	5,49,016	40.67	
Indus Irrigation Canals ...	22,71,916	1,67,009	...	2,557	...	...	48,698	2,18,291	2,60,257	4,70,548	4,41,794	27,077	0.91	
TOTAL														
Imperial ... Contribution ...	21,62,41,191	2,12,22,170	21,607	1,16,048	2,22,786	3,01	6,47,107	7,62,13,212	1,15,03,139	8,78,47,351	1,00,91,436	82,77,16,010	11.86	
Contribution ...	1,51,02,479	27,16,121	...	13,169	54,038	6,13	27,022	29,18,070	...	25,11,000	8,21,201	18,89,889	12.23	
WORKS FOR WHICH CAPITAL AND REVENUE ACCOUNTS ARE KEPT.														
Shahpur Canals ...	2,15,011	65,270	...	167	...	...	21	75,419	10,037	63,333	52,687	10,499	6.25	
Ghaggar Canals ... { Imperial ... Contribution ...	3,76,119	18,707	...	...	...	...	3	18,712	...	18,692	36,013	—17,501	—4.65	
Contribution ...	2,52,442	8,409	...	...	...	...	155	8,413	...	8,568	10,585	—8,022	—8.10	
TOTAL														
Imperial ... Contribution ...	8,82,047	73,577	...	157	...	...	23	73,957	10,037	84,001	68,900	—1,008	—0.97	
Contribution ...	2,65,412	8,204	...	...	...	...	151	8,071	...	8,163	16,897	—8,022	—3.10	
WORKS FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT.														
Lower Sutlej Irrigation Canals ...	...	2,61,791	...	1,412	...	...	2,471	2,61,014	3,11,338	6,70,853	2,85,454	2,91,468	...	
Chenab Irrigation Canals ...	...	1,78,170	...	1,632	...	...	1,125	1,78,428	2,61,100	4,42,614	1,72,292	2,70,323	...	
Muzajgarh Irrigation Canals ...	...	2,75,678	...	5,829	...	...	2,627	2,84,371	3,70,241	6,54,615	3,87,077	2,66,678	...	
TOTAL														
...	...	7,14,659	...	0,70	...	...	6,754	7,31,413	0,45,812	16,77,225	8,16,723	8,01,502	...	
PROVINCIAL WORKS FOR WHICH ONLY REVENUE ACCOUNTS ARE KEPT.														
Shahpur Canals ...	...	27,391	...	...	...	...	625	28,008	6,223	34,211	40,033	—6,712	...	
Baru Irrigation Canals ...	...	...	...	...	...	...	...	...	684	684	2,383	—1,176	...	
TOTAL														
...	...	27,391	...	...	...	...	625	28,008	7,915	35,923	47,300	—7,083	...	

* Includes Rs. 11,631 spent by the Bikaner State.
† Includes Rs. 151 reported by the Bikaner State.

I. D.

STATEMENT OF TRAFFIC ON CANALS IN THE PUNJAB DURING THE YEAR 1915-16.

Particulars.	Western Jumna Canal.	Sirhind Canal.
Length of channel open for navigation ... Miles	222	188
Receipts—		
Tollage on private boats ... Re.	57	1,894
„ „ Government boats ... „	...	...
„ „ rafts ... „	52,227	15,264
Carrying operations or transport service—		
Hire of Government boats ... „	...	...
Refund of revenue ... „	18	127
Total receipts ... „	52,266	17,031
Maintenance charges, including special Navigation Establishment „	5,153	5,757
Net Revenue of year ... „	47,113	11,274
Total number of boats plying cargo ...	...	...
„ „ „ „ passengers ...	...	...
Total registered tonnage cargo ...	...	...
„ „ „ „ passengers ...	...	...
Ton mileage, Up (a) ...	...	...
Down ...	...	...
Total ...	...	...
Estimated value of cargoes, Up (a) ... Rs.	...	...
„ „ „ „ Down ... „	...	...
Total ... „	...	...
Number of passengers ...	...	20,605
Rafts, Up ... C. ft.	...	1,696,996
„ Down ... „	2,090,975	...
Total ... „	2,090,975	1,696,996
Estimated value of rafts ... Rs.	14,53,417	11,72,252
Tollage on boats per ton per mile (a) ...	...	...
„ „ rafts per 100 c. ft. ...	2.49	0.89

(a) Details of boat traffic are not reported (Government of India, Public Works Department, No. 78-I, dated 22nd April 1992).

II D.

DESCRIPTION AND QUANTITIES OF RAFT TRAFFIC ON CANALS IN THE PUNJAB DURING THE YEAR 1915-16.

Particulars.	WESTERN JUMNA CANAL.						SIRHIND CANAL.						TOTAL.			
	TOTAL.			PRIVATE.			TOTAL.			PRIVATE.			TOTAL.		TOTAL.	
	Quantity in tons.			Value.			Quantity in tons.			Value.			Quantity in tons.		Value.	
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
I																
RAFTS.	Up.	Down.	Total.	Rs.	Tons.	Rs.	Up.	Down.	Total.	Rs.	Tons.	Rs.	Up.	Down.	Total.	Rs.
Timber in logs, round and squared	...	241	241	16,871	241	16,871	...	208	363	17,743	263	13,671	...	504	504	31,613
Sleepers, broad gauge	...	23,235	23,235	7,16,703	23,235	7,16,703	...	23,345	23,345	875,169	22,214	833,947	...	46,580	46,580	1,632,931
" " metre "	...	9,129	9,129	2,33,036	9,129	2,33,036	...	5,316	5,316	139,631	5,093	133,683	...	14,445	14,445	370,217
Scantlings	...	9,116	9,116	483,148	9,116	483,148	...	2,161	2,161	138,830	1,953	129,686	...	11,277	11,277	621,978
Bamboos and reeds	...	...	...	...	...	...	...	64	64	930	61	930	...	84	84	930
Firewood	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	41,731	41,731	14,68,417	41,731	14,68,417	...	31,249	31,249	1,172,263	29,577	1,110,916	...	72,970	72,970	2,630,669
																2,569,333

I. E. WITH APPENDICES A AND B.

STATEMENT OF AREAS IRRIGATED BY IRRIGATION WORKS IN THE PUNJAB DURING THE YEAR 1915-16.

NAMES OF CANALS.			AREA IRRIGATED, IN ACRES.										AVERAGE DISCHARGE, IN CUSECS.		AREA IRRIGATED, PER CUSEC.					
			NUMBER OF DAYS CANAL WAS IN FLOW.		Kharif.		Rabi.		TOTAL.		Flow.	Lift.	DOUBLE CROPPED.		AT HEAD <i>less</i> VOLUME RESERVED.		AT DISTRICTARY HEADS.		AT HEAD <i>less</i> VOLUME RESERVED.	
					Irrigated.	Assessed.	Irrigated.	Assessed.	Irrigated.	Assessed.			Area irrigated.	Percent- age of area irrigated.	Kharif.	Rabi.	Kharif.	Rabi.	Kharif.	Rabi.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
<i>Major Irrigation Works.</i>																				
Western Jammu Canal (including Sira Branch, British and Patiala).	165	183	361,275	355,091	463,809	451,178	825,033	805,269	809,070	16,113	68,393	5,229	4,403	2,488	3,611	2,039	82	186	100	228
Sirhind Canal (British) ...	171	183	292,802	299,051	634,197	605,406	937,059	894,157	922,493	4,566	126,456	13,61	2,973	2,853	2,290	2,362	99	222	128	209
" " (Patiala, Nabha and Jind States).	171	183	209,062	207,237	370,915	370,004	590,008	577,841	576,823	4,185	115,733	19,95	2,217	2,004	2,051	1,881	94	195	102	197
Upper Bari Doab Canal ...	174	183	489,914	480,032	655,290	612,323	1,145,231	1,132,375	1,123,453	19,781	230,139	20,53	5,934	2,494	4,908	1,955	83	263	100	335
Lower Bari Doab Canal ...	193	181	114,974	90,637	103,320	114,477	283,294	290,114	282,423	871	4,015	1,1	2,536	1,404	2,036	1,221	45	119	56	138
Upper Chenab Canal ...	168	183	159,152	155,540	195,310	162,413	321,082	317,953	322,116	2,940	16,479	4,76	3,108	1,628	3,177	864	51	102	73	234
Lower Chenab Canal ...	101	193	652,142	649,425	1,631,947	1,587,359	3,251,079	2,337,234	2,247,027	37,072	164,856	7,22	8,934	7,078	7,295	6,109	73	230	89	266
" " Jhelum Canal ...	178	170	216,857	199,023	617,319	613,573	834,176	811,896	831,353	2,923	11,893	1,79	3,213	3,455	2,621	2,954	67	179	83	209
Upper Sutlej Canals ...	16	1	134,197	127,612	138,639	139,559	272,745	269,171	269,677	3,069	23,998	9,01	3,131	3,131	2,908	2,908	87	87	94	94
Sahawal Canals ...	145	27	117,099	98,571	152,151	154,678	270,150	232,249	219,213	5,036	910	0,31	1,039	1,039	1,688	1,688	100	100	160	160
In 'us Foundation Canals	113	10	133,124	102,147	97,517	79,982	235,641	183,020	225,095	8,956	4,825	2,05	3,184	3,184	3,184	3,184	74	74	74	74
Total	...	...	2,886,678	2,753,386	5,006,954	4,995,353	7,932,362	7,648,943	...	...	...	...	...	...	...	...	...	...	...	...
<i>Minor Irrigation Works.</i>																				
Shabpur (Imperial) Inundation Canals	118	4	9,429	7,617	17,350	16,430	21,759	23,047	21,739	20	...	...	...	506	506	506	53	53	53	53
Ghoggar Inundation Canals (British)	28	25	4,218	4,178	17,788	17,039	22,093	21,817	22,006	...	...	...	...	415	415	415	53	53	53	53
" " (Bikaner)	...	...	12	5	3,156	2,101	3,168	2,103	3,168	...	...	...	...	118	118	118	27	27	27	27
Lower Sutlej Inundation Canals	146	30	122,335	91,008	161,237	159,445	393,572	241,813	255,354	14,218	61	0,02	1,956	1,956	1,956	1,956	145	145	145	145
Chenab Inundation Canals	120	...	84,107	81,789	83,373	89,063	170,485	141,853	139,751	2,101	860	0,50	2,304	2,304	2,304	2,304	74	74	74	74
Muzaffargarh Inundation Canals	115	20	137,979	129,751	239,116	227,233	377,255	331,934	373,407	3,989	63,172	13,82	5,469	5,469	5,469	5,469	69	69	69	69
Shabpur (Provincial) Inundation Canals	107	...	4,227	4,071	14,347	13,039	18,891	17,750	14,894	...	353	1,8	354	354	354	354	53	53	53	53
Total	...	...	362,007	276,079	639,673	594,270	904,279	800,349	...	...	...	...	...	...	...	...	...	...	...	...

* Excludes 39,032 acres remitted under Tenancy rules.

APPENDIX A TO STATEMENT I. E.

STATEMENT SHOWING AREAS ON WHICH OCCUPIERS' RATES WERE REMITTED DURING THE YEAR 1915-16.

CAUSE OF REMISSION.	Kharif, 1915.				Rabi, 1915-16.			
	Area assessed.	Area remitted.	Total area irrigated.	Percentage remitted.	Area assessed.	Area remitted.	Total area irrigated.	Percentage remitted.
1	2	3	4	5	6	7	8	9
WESTERN JUMNA CANAL.								
1. Wrong assessment	...	91	...	...	...	40	...	...
2. Escape irrigation
3. Under Tenancy Rules	...	11	...	...	...	1	...	...
4. Short supply	...	1,231	...	...	...	9,000	...	...
5. Hail	...	1	...	...	...	...	...	...
6. Frost
7. High wind	...	21	...	...	...	104	...	...
8. Flooding { (a) by heavy rain (b) from canal	...	45 90	...	...	...	31	...	...
9. Rats
10. Locusts	...	1,791	...	...	...	1	...	...
11. Other insects and blight	...	1,764	...	...	...	710	...	...
12. Bad germination or cultivation	...	919	...	...	...	2,169	...	...
13. Bad soil	...	1	...	...	...	12	...	...
14. High land	93	...	...
15. Miscellaneous	...	215	...	...	...	585	...	...
Total	355,691	(A) 6,161	361,275	1.71	451,178	(A) 12,630	463,808	2.72
SIRHIND CANAL (IMPERIAL).								
1. Wrong assessment
2. Escape irrigation
3. Under Tenancy Rules
4. Short supply	...	29	...	...	...	27,868	...	...
5. Hail	...	12	...	...	...	2	...	...
6. Frost	62	...	...
7. High wind	...	1	...	...	...	9	...	...
8. Flooding { (a) by heavy rain (b) from canal	...	11 1	...	...	...	14	...	...
9. Rats	...	1,632	...	...	...	1	...	...
10. Locusts	...	23	...	...	...	2	...	...
11. Other insects and blight	...	661	...	...	...	97	...	...
12. Bad germination or cultivation	...	508	...	...	...	95	...	...
13. Bad soil	...	9	...	...	...	4	...	...
14. High land	...	1	...	...	...	...	...	...
15. Miscellaneous	...	690	...	...	...	617	...	...
Total	259,051	3,611	262,662	1.30	605,403	28,791	634,194	4.51
UPPER BARI DOAB CANAL.								
1. Wrong assessment	...	27	...	...	...	82	...	...
2. Escape irrigation	...	5	...	...	...	...	...	...
3. Under Tenancy Rules
4. Short supply	...	765	...	...	...	12,209	...	...
5. Hail
6. Frost	56	...	...
7. High wind	...	43	...	...	...	...	...	...
8. Flooding { (a) by heavy rain (b) from canal	...	88 18	...	...	...	30	...	...
9. Rats	...	20	...	...	...	...	...	...
10. Locusts	...	740	...	...	...	...	...	...
11. Other insects and blight	...	9,981	...	...	...	35	...	...
12. Bad germination or cultivation	...	40	...	...	...	86	...	...
13. Bad soil	...	47	...	...	...	91	...	...
14. High land	...	24	...	...	...	...	...	...
15. Miscellaneous	...	1,181	...	...	...	420	...	...
Total	450,652	9,892	460,544	2.02	612,823	12,667	625,490	1.98
LOWER BARI DOAB CANAL.								
1. Wrong assessment
2. Escape irrigation	1,034	...	...
3. Under Tenancy Rules	...	10,114	...	...	...	27,911	...	...
4. Short supply	...	11	...	...	...	1,277	...	...
5. Hail
6. Frost	20	...	...
7. High wind	...	44	...	...	...	...	...	...
8. Flooding { (a) by heavy rain (b) from canal	...	9 21	...	...	...	100	...	...
9. Rats
10. Locusts	...	257	...	...	...	...	...	...
11. Other insects and blight	...	267	...	...	...	31	...	...
12. Bad germination or cultivation	...	2,919	...	...	...	3,399	...	...
13. Bad soil	...	5,108	...	...	...	4,824	...	...
14. High land	...	835	...	...	...	122	...	...
15. Miscellaneous	...	5,271	...	...	...	11,097	...	...
Total	90,637	21,337	111,974	-21.16	118,477	49,813	168,290	92.81

(A) Detail of area remitted :-

	Kharif.	Rabi.
In the four Divisions	6,360	13,321
In Patiala State	801	108
In Jind State	524	198
Total	6,184	13,627

**STATEMENT SHOWING AREAS ON WHICH OCCUPIERS' RATES WERE REMITTED
DURING THE YEAR 1915-16—CONTINUED.**

CAUSE OF REMISSION.	Kharif, 1915.				Rabi, 1915-16.			
	Area assessed.	Area remitted.	Total area irrigated.	Percentage remitted.	Area assessed.	Area remitted.	Total area irrigated.	Percentage remitted.
1	2	3	4	5	6	7	8	9
UPPER CHENAB CANAL.								
1. Wrong assessment	Acres.	Acres.	Acres.		Acres.	Acres.	Acres.	
2. Defective irrigation	11	...	...
3. Under Tenancy Rules
4. Short supply
5. Hail	...	243	...	...	...	2,989	...	...
6. Frost	...	1	...	...	...	4	...	...
7. High wind
8. Flooding { (a) by heavy rain (b) from canal	...	8	...	...	...	152	...	...
9. Rats	50	...	...
10. Locusts
11. Other insects and blight	...	216	...	...	...	193	...	...
12. Bad germination or cultivation	...	2,237	...	...	...	...	...	...
13. Bad soil	...	143	...	...	...	88	...	...
14. High land	136	...	...
15. Miscellaneous
16. Perpetual remission	...	764	...	...	...	530	...	...
17. Dog Nallah	4	...	...
Total	155,610	3,012	159,152	2.32	162,413	3,497	165,910	2.16
LOWER CHENAB CANAL.								
1. Wrong assessment
2. Defective irrigation
3. Under Tenancy Rules
4. Short supply
5. Hail	...	888	...	...	...	...	...	...
6. Frost	...	36	...	...	...	23,464	...	...
7. High wind
8. Flooding { (a) by heavy rain (b) from canal	...	62	...	...	...	20	...	...
9. Rats	...	4	...	...	...	10	...	...
10. Locusts
11. Other insects and blight	...	824	...	...	...	...	...	...
12. Bad germination or cultivation	...	53	...	...	...	...	...	...
13. Bad soil	...	842	...	...	...	2,025	...	...
14. High land	...	478	...	...	...	618	...	...
15. Miscellaneous	...	32	...	...	...	104	...	...
Total	619,423	2,717	652,143	0.41	1,587,559	41,078	1,631,937	2.70
LOWER JHELUM CANAL.								
1. Wrong assessment
2. Defective irrigation
3. Under Tenancy Rules
4. Short supply	...	1,097	...	...	...	...	...	...
5. Hail	...	10	...	...	...	1,131	...	...
6. Frost	77	...	...
7. High wind	1,448	...	...
8. Flooding { (a) by heavy rain (b) from canal
9. Rats
10. Locusts
11. Other insects and blight	...	62	...	...	...	...	...	...
12. Bad germination or cultivation	...	13,134	...	...	...	...	...	...
13. Bad soil	...	8,777	...	...	...	44	...	...
14. High land	607	...	...
15. Miscellaneous	...	610	...	...	...	100	...	...
Total	198,023	18,834	216,857	8.65	613,873	3,418	617,319	0.56
UPPER SUTLEJ INUNDATION CANALS.								
1. Wrong assessment
2. Defective irrigation
3. Under Tenancy Rules
4. Short supply
5. Hail	...	3,092	...	...	...	...	...	...
6. Frost
7. High land
8. Flooding { (a) by heavy rain (b) from canal
9. Rats	...	20	...	...	...	...	...	...
10. Locusts	...	0	...	...	...	...	...	...
11. Other insects and blight	...	843	...	...	...	...	...	...
12. Bad germination or cultivation	...	2,162	...	...	...	...	...	...
13. Bad soil
14. High land
15. Miscellaneous
Total	127,612	6,575	131,187	4.90	138,659	...	138,659	...

**STATEMENT SHOWING AREAS ON WHICH OCCUPIERS' RATES WERE REMITTED
DURING THE YEAR 1915-16—CONTINUED.**

CAUSE OF REMISSION.	Kharif, 1915.				Rabi, 1915-16.			
	Area assessed.	Area remitted.	Total area irrigated.	Percentage remitted.	Area assessed.	Area remitted.	Total area irrigated.	Percentage remitted.
1	2	3	4	5	6	7	8	9
SIDHNAI CANALS.								
1. Wrong assessment
2. Escape irrigation
3. Under Tenancy Rules
4. Short supply	4,144	...	...	...	23,821	...	...
5. Hail
6. Frost
7. High wind
8. Flooding { (1) by heavy rain
(2) from canal
(3) from river
9. Rats
10. Locusts
11. Other insects and blight
12. Bad germination or cultivation	8,205	...	...	...	...	...	...
13. Bad soil	9,079	...	...	...	2,190	...	...
14. High land
15. Miscellaneous	1,462	...	...
Total ...	98,671	19,428	117,699	16.46	124,678	27,473	152,151	18.06
INDUS INUNDATION CANALS.								
1. Wrong assessment
2. Escape irrigation
3. Under Tenancy Rules
4. Short supply	15,650	...	...	...	2,343	...	...
5. Hail
6. Frost
7. High wind	101	...	...	...	288	...	...
8. Flooding { (1) by rain
(2) from river
(3) hill torrent
9. Rats
10. Locusts
11. Other insects and blight	840	...	...	...	...	...	...
12. Bad germination or cultivation	12,806	...	...
13. Bad soil	19,356	...	...	...	...	...	...
14. Some water	24	...	...	...	...	...	...
15. Scanty rain	2,193	...	...
16. Miscellaneous
Total ...	102,147	35,977	138,124	28.04	79,882	17,636	97,517	18.07
CHENAB INUNDATION CANALS.								
1. Wrong assessment
2. Escape irrigation
3. Under Tenancy Rules
4. Short supply	9,760	...	...	...	2,096	...	...
5. Hail
6. Frost
7. High wind
8. Flooding { (1) by rain
(2) from canal
(3) from river
9. Rats
10. Locusts
11. Other insects and blight
12. Bad germination or cultivation	7,846	...	...	...	...	...	...
13. Bad soil	4,683	...	...	...	3,108	...	...
14. High land
15. Miscellaneous	29	...	...	...	416	...	...
Total ...	61,769	22,818	84,107	28.53	60,063	6,815	66,378	7.81

DURING THE YEAR 1915-16—CONTINUED.

CAUSE OF REMISSION.	Kharif, 1915.				Rabi, 1915-16.			
	Area assessed.	Area remitted.	Total area irrigated.	Percentage remitted.	Area assessed.	Area remitted.	Total area irrigated.	Percentage remitted.
1	2	3	4	5	6	7	8	9
LOWER SUTLEJ INUNDATION CANALS.								
1. Wrong assessment
2. Escape irrigation
3. Under Tenancy Rules
4. Short Supply	...	18,649	...	...	...	1,434	...	...
5. Hail
6. Frost
7. High wind
8. Flooding { (a) by heavy rain (b) from canal	...	87 81	...	...	...	...	...	...
9. Rats
10. Locusts	...	8	...	...	...	...	...	...
11. Other insects and blight	...	808	...	...	...	...	...	...
12. Bad germination or cultivation	...	5,642	...	...	...	...	...	...
13. Bad soil	...	7,327	...	...	...	4,033	...	...
14. High land
15. Miscellaneous	...	120	...	...	...	5,625	...	...
Total	91,668	80,667	122,335	25.07	160,145	11,082	161,237	6.88
MUZAFFARGARH INUNDATION CANALS.								
1. Wrong assessment
2. Escape irrigation
3. Under Tenancy Rules
4. Short supply	...	5,026	...	...	...	3,020	...	...
5. Hail
6. Frost
7. High wind
8. Flooding { (a) by heavy rain (b) from canal (river)	...	306	...	...	...	148	...	...
9. Rats
10. Locusts	...	74	...	...	...	...	...	...
11. Other insects and blight
12. Bad germination or cultivation	...	841	...	...	...	1,654	...	...
13. Bad soil	...	3,737	...	...	...	8,190	...	...
14. High land
15. Miscellaneous	...	1,134	...	...	...	1,171	...	...
Total	126,781	11,328	137,079	8.18	225,233	14,183	239,416	5.92
SHAHPUK IMPERIAL CANALS.								
1. Wrong assessment
2. Escape irrigation
3. Under Tenancy Rules
4. Short supply	...	220	...	...	...	642	...	...
5. Hail	202	...	...
6. Frost
7. High wind
8. Flooding { (a) by heavy rain (b) from canal
9. Rats
10. Locusts
11. Other insects and blight	...	1,414	...	...	...	...	...	...
12. Bad germination or cultivation	...	140	...	...	...	942	...	...
13. Bad soil	...	88	...	...	...	114	...	...
14. High land
15. Miscellaneous
Total	7,617	1,812	9,429	19.21	15,430	1,900	17,330	10.96

**STATEMENT SHOWING AREAS ON WHICH OCCUPIERS' RATES WERE REMITTED
DURING THE YEAR 1915-16—CONCLUDED.**

CAUSE OF REMISSION.	Kharif, 1915.				Rabi, 1915-16.			
	Area assessed.	Area remitted.	Total area irrigated.	Percentage remitted	Area assessed.	Area remitted.	Total area irrigated.	Percentage remitted.
1	2	3	4	5	6	7	8	9
GHAUGGAR CANALS.								
1. Wrong assessment
2. Escape irrigation
3. Under Tenancy Rules
4. Short supply	1,204	...	...
5. Hail
6. Frost
7. High wind
8. Flooding (a) by heavy rain (b) from canal
9. Rats
10. Locusts
11. Other insects and blight	40	...	...	...	...	...	...
12. Bad germination or cultivation	7	...	...	...	...	...	...
13. Bad soil
14. High land
15. Miscellaneous
Total ...	4,183	(A) 47	4,230	1.14	10,740	(B) 1,204	20,944	5.75
SHAHPUR PROVINCIAL CANALS.								
1. Wrong assessment
2. Escape irrigation
3. Under Tenancy Rules	659	...	...
4. Short supply
5. Hail
6. Frost
7. High wind
8. Flooding (a) by heavy rain (b) from canal
9. Rats
10. Locusts
11. Other insects or blight
12. Bad germination or cultivation	455	...	...	...	19	...	...
13. Bad soil
14. High land
15. Miscellaneous
Total ...	4,071	455	4,527	10.07	13,659	708	14,367	4.91

	(A)	(B)
British ...	40	149
Bikaner ...	7	1,056
Total ...	47	1,204

APPENDIX B TO STATEMENT I. E.

STATEMENT SHOWING AREAS ON WHICH OWNERS' RATES WERE REMITTED
DURING THE YEAR 1915-16.

CAUSE OF REMISSION.	Kharif, 1915.			Rabi, 1915-16.		
	Area assessed.	Area remitted.	Percentage remitted.	Area assessed.	Area remitted.	Percentage remitted.
LOWER CHENAB CANAL CIRCLE.						
1. Wrong assessment
2. Escape irrigation
3. Under Tenancy Rules
4. Short Supply
5. Hail
6. Frost
7. High wind
8. Flooding {

9. Rate
10. Locusts
11. Other insects and blight
12. Bad germination or cultivation
13. Bad soil
14. High land
15. Miscellaneous
Total

II E.

STATEMENT SHOWING INCIDENCE OF WORKING EXPENSES AND ASSESSED WATER REVENUE ON THE CANALS IN THE PUNJAB DURING 1915-16.

NAMES OF CANALS.	Average discharge of the year at canal head less volume escaped, in cu. ft.	WATER-RATE ASSESSED IN 1915-16.						Gross assessed revenue from all sources.	Working expenses, direct and indirect.	Area assessed during 1915-16.	WORKING EXPENSES.				OCCUPIERS' RATES.				TOTAL WATER RATES DIRECT AND INDIRECT.	
		Occupier's.	Owner's.	Total direct.	Indirect.	Total direct and indirect.	Rs.				Rs.	Acre.	Percent. on gross revenue.	Per acre assessed.	Per cuase of dis-charge.	Per acre assessed.	Per cuase of dis-charge.	Per acre assessed.	Per cuase of dis-charge.	
1																				
MARON IRRIGATION WORKS.																				
Western Jumna Canal (including Sirsa Branch British and Patiala).	3,416	30,42,789	...	30,42,789	2,30,900	...	32,73,789	34,07,401	11,93,629	800,269	44.00	1.80	435	3.77	893	4.06	950			
Sirhind Canal (British) ..	2,913	34,63,073	...	34,63,073	59,651	...	37,68,023	40,87,867	12,33,855	89,457	30.31	1.39	425	4.10	1,250	4.20	1,290			
" " (Patiala, Nabha and Jind States) ..	2,110	21,91,576	...	21,91,576	...	...	21,91,576	23,85,019	8,31,040	577,841	32.15	1.44	394	4.31	1,181	4.31	1,181			
Upper Bari Doab Canal ..	4,214	35,38,501	...	35,38,501	6,16,293	...	44,54,794	47,32,200	13,72,563	1,122,375	29.01	1.22	325	3.42	911	3.97	1,057			
Lower Bari Doab Canal ..	1,970	4,89,519	...	4,89,519	1,20,986	...	6,10,505	6,10,509	6,50,955	269,114	105.56	3.11	380	2.34	248	2.93	310			
Upper Chenab Canal ..	2,303	13,11,502	...	13,11,502	01,077	...	14,05,579	14,35,352	8,43,115	317,953	55.09	2.63	353	4.23	563	4.42	594			
Lower Chenab Canal ..	8,003	89,39,014	24,563	89,63,577	81,51,650	...	1,65,15,167	1,79,02,772	32,71,593	2,237,294	19.71	1.16	409	3.73	1,042	7.38	2,063			
" " Jhelum Canal ..	3,344	27,33,113	...	27,33,113	11,72,313	...	42,05,561	12,75,178	817,559	811,536	19.13	1.01	215	3.37	820	5.18	1,281			
Upper Sutlej Canals ..	3,131	3,51,793	...	3,51,793	2,01,373	...	6,53,069	6,53,300	4,09,708	296,171	72.48	1.63	131	1.33	112	2.08	177			
Siddhai Canals ..	1,653	4,70,188	...	4,70,188	2,09,329	...	6,79,517	6,80,032	1,10,523	229,219	21.35	0.66	87	2.11	279	3.04	402			
Indus Irrigation Canals ..	3,184	1,67,969	...	1,67,969	2,50,237	...	4,18,130	4,09,501	4,11,584	192,029	94.05	2.43	139	0.92	63	2.80	131			
MARON IRRIGATION WORKS.																				
Shahpur (Imperial) Irrigation Canals	505	55,270	...	55,270	10,937	...	66,207	60,335	52,887	23,017	79.67	2.29	103	2.39	109	2.57	131			
Ghaggar Irrigation Canals (British)	415	18,507	...	18,507	...	...	18,507	19,509	30,013	21,817	191.56	1.65	87	0.85	45	0.85	45			
" " (Hilaner)	118	13,403	...	13,403	...	...	8,403	8,563	10,085	2,106	193.09	7.89	141	3.99	71	3.99	71			
Lower Sutlej Irrigation Canals ..	1,956	2,64,731	...	2,64,731	3,11,338	...	5,76,069	5,79,952	285,154	211,813	49.22	1.18	146	1.09	135	2.38	294			
Chenab Irrigation Canals ..	2,304	1,75,170	...	1,75,170	2,01,190	...	4,49,360	4,42,018	172,292	141,852	38.93	1.21	75	1.23	76	3.10	147			
Muzaffargarh Irrigation Canals ..	6,409	2,75,088	...	2,75,088	3,70,251	...	6,45,973	6,54,055	357,977	331,984	54.68	1.02	65	0.78	50	1.83	118			
Shahpur (Provincial) Irrigation Canals	354	27,393	...	27,393	6,293	...	33,686	31,211	40,953	17,730	119.60	2.31	116	1.64	77	1.89	83			
Ravi Irrigation Canals ..	...	...	...	...	...	...	...	889	2,383	...	208.36	...	...	...	...	...	...

* Includes Rs. 25,196 actually spent by the Patiala State.

+ Includes Rs. 11,821 actually spent by the Bikaner State.

† Figures reported by the Bikaner State.

STATEMENT OF QUANTITY AND VALUE OF CROPS

NAME OF CROPS.			WESTERN JUMBA CANAL.		SIBERED CANAL (BRITISH).		SIAMING CANAL (NATIVE STATES' HEADQUARTERS).		UPPER BANG DOAN CANAL.	
English.	Veroncular.	Scientific.	Area assessed to waterworks.	Estimated value.	Area assessed to waterworks.	Estimated value.	Area assessed to waterworks.	Estimated value.	Area assessed to waterworks.	Estimated value.
1	2	3	4	5	6	7	8	9	10	11
Cereals			Acre.	Rs.	Acre.	Rs.	Acre.	Rs.	Acre.	Rs.
Wheat	Ochra	Triticum sativum	234,473	62,05,873	200,851	1,12,71,447	187,771	6,22,054	214,167	95,23,215
Barley	Jan	Holcus vulgare	18,669	4,71,999	151,812	43,37,526	118,970	31,70,202	6,271	1,67,530
Rice	Ohona	Oryza sativa	22,206	2,10,023			3,447	1,10,374	22,749	41,46,690
Millets	Makli	Zea mays	3,271	1,09,070	50,263	18,65,310	46,701	10,66,893	86,617	30,47,197
Oats	Jawi	Avena sativa	631	21,800					4,035	1,59,260
Mixed Grain	Borra		83,799	20,81,640	12	390	13,007	4,10,010	191,544	42,04,373
Miscellaneous			3,231	77,063	2	41	5,012	10,251	21,765	4,76,630
Millets and Pulses										
Great Millet	Bawar	Pennisetum vulgare	84,481	22,13,025	11,277	2,49,425	2,127	7,005	43,570	10,89,472
Spiked Millet	Dakra	Panicum capillare	23,183	4,01,400	711	11,931	841	19,081	1,178	28,328
Italian Millet	Kaongli	Setaria italica	118	2,740			110	370	1,330	32,220
	Mandara	Echinochloa crusgalli	120	3,000			39	700		700
	Savank	Pennisetum frutescens							35	700
Gram	Chana	Cicer arietinum	69,421	13,01,074	116,175	26,47,025	80,074	7,01,444	63,022	14,70,200
Lentil	Masur	Ervum lens	6,459	1,70,720	36	7,600	223	670	3,752	88,600
	Bawar								57	1,700
Peanut	Mattar	Pisum sativum	4,157	84,720	10	700		280	85	2,400
	Mash	Phaseolus radiatus	475	8,400	83	2,500	124	2,000	600	14,160
	Mung	Phaseolus mungo	231	4,400	31	600	15	1,700	194	4,000
	Mooh	Phaseolus acutifolia	601	8,000	1,007	16,500	61	915	18,439	3,56,075
	Gau	Cyamopsis tetralobus	17,000	2,70,000	41,163	12,74,000	2,771	81,400	17,714	4,16,300
Mixed Grain	Borra		1,237	37,110				46,700	8,500	1,74,000
	Chana	Panicum millaceum			31	1,000	126	3,100	107	4,800
	Maidai								129	5,100
Miscellaneous			1,632	24,050					6	75
Drugs and Spices										
Tobacco	Tamulu	Nicotiana glauca	647	23,000	22	1,500	17	1,300	1,601	1,27,610
Poppy	Poot	Papaver somniferum								
Asiatic and Dill	Achala	Piper nigrum	1	40						
Panaceae	Wethi	Trigonotis foetida	13,471	3,41,177					217	5,425
Cardamom	Dharu	Coriandrum sativum	301	5,000	57	2,500	9	120	69	2,720
Gummi	Zira	Commiphora officinalis								
Turnerie	Halli	Cucumis loma							21	1,400
Asiatic	Sung	Pimpinella anisum	3	100					29	630
Miscellaneous	Kamal		70	1,000			10	800	2	30
Fibres										
Cotton	Pul	Gossypium herbaceum	105,221	32,85,704	1,501	48,700	13,599	4,42,421	89,200	28,43,700
Boleis hemp	Sar	Hibiscus esculentus	622	13,000	721	8,700	222	18,000	1,001	43,000
Tails Erup	Sanal	Crotalaria juncus	631	10,000	542	22,500			660	1,900
Miscellaneous	Munjkara	Saccharum munja								
Dyes										
Indigo	Nil	Indigofera tinctoria	5,107	1,27,025			70	2,700		
Henna	Nehali	Lawsonia alba								
Flower	Kasumba	Crotalaria tinctoria								
Miscellaneous										
Oil-seeds										
Glugely or Beans	Til	Sesamum indicum	65	1,000	74	800	10	200	2,711	80,200
Jaip	Savon	Brassica campestris	12,000	2,71,000	4,733	1,10,700	6,200	1,62,534	7,200	2,10,400
Do.	Tolia	Do. (Var. toria)			1,000	20,000			112	41,000
Linseed flax	Tavulra	Erucas sativa	1	21	301	8,000	10	4,000	707	20,074
Miscellaneous	Alu	Linnam tota latissimum	1	21	10	100	8	200	201	10,234
			4	81					619	17,600
Fruits and Vegetables										
Orchards										
Chillies	Mirch	Capiscum annuum	730	70,120	100	10,000			802	63,160
Melons	Khyrbaza	Cucumis melo	1,600	10,000	3,002	1,62,100	1,700	81,000	8,401	3,76,100
Carrots	Gajar	Daucus carota	100	2,000			100	2,000	112	6,120
Cucis	Hatum	Lentilium sativum	100	4,000	13	210	81	1,000	10	800
Onions	Paz	Allium cepa	100	6,000			10	100	341	1,110
Turnips	Bagam	Brassica rapa	4	140	100	25,500			7,600	20,000
Water-melons	Singhara	Trapa bicoloris	100	2,000					601	30,100
Gardens			0,713	0,71,200	618	61,000	1,602	1,62,200	0,801	0,80,100
Patatoes	Alu	Solanum tuberosum	100	25,000					112	31,000
Vegetables	Takari		2,100	1,24,000	1,721	1,50,000	917	64,100	4,400	3,08,400
Miscellaneous	Lekun		74	1,400	110	500			122	3,600
Fodder										
Lucerne grass	Lavan ghav	Medicago sativa	1,007	10,000	80	1,000	5	100	411	20,460
Grass	Saji	Do. var.	27	310	24,400	5,63,500	22,517	4,00,000	09,510	20,00,000
Millets, etc.	Ghas		1,671	2,610	103	4,000	700	16,100	1,215	16,100
	Charbi		10,617	4,16,175	105,819	40,71,300	1,00,000	39,00,000	80,705	24,81,200
	Mains								6,225	6,225
Sugarcane	Ganna	Echinochloa officinarum	79,167	80,21,217	1,007	1,24,800	2,251	2,02,608	20,301	4,08,000
	Shaffal									
Miscellaneous	Melhra				777	4,750	5,100	10,100		100
Total			796,014	3,17,91,019	890,201	2,76,61,678	671,519	1,70,94,021	1,100,980	4,22,54,070
Fallows			4,001		2,401		5,000		1,970	
Engli watering									16,017	
Plantations			1,457		702				247	
Miscellaneous			1,605						122	
Waste of water			4,619							
Palaver										
Grand Total			800,500	3,17,91,049	892,602	2,76,61,678	676,519	1,70,94,020	1,102,950	4,22,54,070

[illegible]

*includes 37,078 acres remitted under Tenancy Enact.

STATEMENT OF QUANTITY AND VALUE OF CROPS IRRIGATED

NAMES OF CROPS.			INDUS IRRIGATION CANALS.		SHARADA (IMPERIAL) IRRIGATION CANALS.		GRAGGAR CANALS (BRITISH).		GRAGGAR CANALS (SIKAR).	
English.	Vernacular.	Scientific.	Area sown to water-rafts.	Estimated value.	Area sown to water-rafts.	Estimated value.	Area sown to water-rafts.	Estimated value.	Area sown to water-rafts.	Estimated value.
1	2	3	21	22	23	24	25	26	27	28
Cereals—										
Wheat	Gohn	Triticum sativum	14,174	29,74,143	11,371	3,73,923	4,397	1,33,715	13	2,685
Barley	Jao	Holcus vulgare	2,010	43,010	161	3,773	778	19,825	618	16,700
Rice	Jhona	Oryza sativa	41,774	13,30,112	294	17,730	3,550	117,000	...	...
Maize	Makki	Zea mays	26	423	102	2,774	...	...	...	...
Oats	Jawl	Avena sativa	...	...	171	6,540	...	...	...	...
Mixed Grain	Berra	...	...	...	...	...	...	...	...	...
Miscellaneous	...	...	...	...	...	...	4,813	1,23,325	802	30,050
Millets and Pulses—										
Great Millet	Jawar	Sorghum vulgare	10,485	3,70,518	...	...	...	...	...	...
Spoked Millet	Boja	Panicum spicatum	13,479	4,67,654	543	14,218	238	5,900	9	80
Italian Millet	Kacni	Setaria italica	...	...	...	...	...	...	...	...
...	Mandwa	Eleria coracana	...	...	...	...	...	...	...	...
...	Fawank	Panicum frumentaceum	...	...	...	...	...	...	...	...
...	Chana	Cicer orientum	...	...	...	...	...	...	...	...
...	Marr	Ervum lens	11,071	1,83,100	2,380	60,614	6,512	1,33,723	238	4,564
...	Bawan	Pisum sativum	132	3,900	163	5,480	...	...	...	...
...	Mattar	Phaseolus radiatus	...	...	...	...	...	...	...	...
...	Mach	Phaseolus mungo	...	...	...	...	...	...	...	...
...	Mong	Phaseolus aconitifolia	...	...	...	...	...	...	...	...
...	Noth	Cyamopsis psoraleoides	...	...	...	...	...	...	...	...
...	Ghar	Panicum miliaceum	...	...	...	...	...	...	...	...
...	Chana	...	...	...	...	...	...	...	...	...
...	Maddal	...	...	...	...	...	...	...	...	...
...	...	...	117	2,810	...	...	...	...	...	...
Drugs and Spices—										
Tobacco	Taraku	Nicotiana glauca	...	...	35	2,600	...	...	...	...
Poppy	Post	Papaver somniferum	...	...	...	...	...	...	...	...
Aniseed and Dill	Ajwan	Pitcheia ajwan	1,579	73,650	...	...	...	...	...	...
Peppercorn	Methi	Trigonotis foeniculaceum	...	...	...	...	...	...	...	...
Coriander	Phanla	Coriandrum sativum	...	...	...	...	...	...	...	...
Cumin	Fira	Cuminum nigrum	...	...	...	...	...	...	...	...
Turmeric	Madi	Curcuma longa	...	...	...	...	...	...	...	...
Aniseed	Saani	Pimpinella anisum	...	...	...	...	...	...	...	...
Miscellaneous	Kosul	...	10	200	...	...	...	...	...	...
Fibres—										
Cotton	...	...	...	...	...	...	...	...	...	...
Rosella hemp	...	...	...	...	...	...	...	...	...	...
False hemp	...	...	...	...	...	...	...	...	...	...
Miscellaneous	...	...	...	...	...	...	...	...	...	...
Dyes—										
Indigo	Nil	Indigofera tinctoria	1,002	42,480	...	...	...	...	...	...
Henna	Mehndi	Lawsonia alba	...	...	4	120	...	...	...	...
Flower	Kasurmita	Carthamus tinctorius	...	...	...	...	...	...	...	...
Miscellaneous	...	...	...	...	...	...	...	...	...	...
Oil-seeds—										
Girgelly or Sesame	Til	Sesamum indicum	...	...	...	...	...	...	...	...
Rape	...	...	...	...	...	...	...	...	...	...
Do.	...	...	...	...	...	...	...	...	...	...
Linseed flax	...	...	...	...	...	...	...	...	...	...
Miscellaneous	...	...	...	...	...	...	...	...	...	...
Fruits and Vegetables—										
Orchards	...	...	...	...	...	...	...	...	...	...
Chillies	...	...	...	...	...	...	...	...	...	...
Melons	...	...	...	...	...	...	...	...	...	...
Carrots	...	...	...	...	...	...	...	...	...	...
Cress	...	...	...	...	...	...	...	...	...	...
Onions	...	...	...	...	...	...	...	...	...	...
Turnips	...	...	...	...	...	...	...	...	...	...
Water-cress	...	...	...	...	...	...	...	...	...	...
Gardens	...	...	...	...	...	...	...	...	...	...
Patatoes	...	...	...	...	...	...	...	...	...	...
Vegetables	...	...	...	...	...	...	...	...	...	...
Miscellaneous	...	...	...	...	...	...	...	...	...	...
Forage—										
Lucerne Grass	Lusan ghas	Medicago sativa	...	...	...	...	...	...	...	...
Grass	...	...	...	...	...	...	...	...	...	...
Millet, etc.	...	...	...	...	...	...	...	...	...	...
Sugarcane	...	...	...	...	...	...	...	...	...	...
Miscellaneous	...	...	...	...	...	...	...	...	...	...
Fallows	...	...	...	...	...	...	...	...	...	...
Single watering	...	...	...	...	...	...	...	...	...	...
Plantations	...	...	...	...	...	...	...	...	...	...
Miscellaneous	...	...	...	...	...	...	...	...	...	...
Waste of water	...	...	...	...	...	...	...	...	...	...
Palaver	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL			162,779	85,07,984	23,047	7,17,676	21,603	5,67,751	2,106	51,723

CONCLUDED.

IN THE PUNJAB DURING THE YEAR 1915-16—CONCLUDED.

[illegible]

IV-E.

COMPARATIVE STATEMENT OF IRRIGATION AND RAINFALL FOR THE YEARS 1915-16 AND 1914-15 IN THE PUNJAB.

CIVIL DISTRICT.	OF THE CIVIL DISTRICT.				Name.	Culturable area com- manded by Irrigation Works in column 3, in acres.	Area at present proposed to be annually irrigated by works specified in column 3.	AREA IRRIGATED IN ACRES.			RAINFALL, INCHES.				
	1915-16.		1914-15.					Total.	1915-16.	1914-15.					
	Kharif.	Rabi.	Total.	Kharif.							Rabi.	Total.			
1	2	3	4	5	6	(a) 7	8.	9	10	11	12	13	14	15	
Dahli	804,162	473,381	540,951	Western Jumna Canal	60,707	37,416	10,972	23,727	33,699	13,317	12,537	25,854	16.15	21.50	
Rohtak	1,430,616	1,337,796	1,117,161		87,573	290,391	80,523	123,136	2,995	2,995	118,313	110,778	229,091	16.95	27.81
Karnal	1,898,473	1,721,682	1,104,817		618,144	245,385	81,174	123,117	1,391	2,564	101,897	104,749	206,646	11.87	24.63
Ambala	1,198,630	873,416	747,891	Western Jumna Canal Sirhind Canal Ghaggar Canals	4,805	2,193	1,299	1,391	2,564	1,370	1,144	2,514	24.74	24.63	
Hissar	3,318,793	3,162,957	2,640,718		517,143	220,737	118,656	131,967	3,016	290,613	123,479	144,293	267,772	3.79	16.87
					31,000	9,780	2,345	3,016	17,789	5,321	5,037	4,734	9,771	...	14.50
				Total	73,978	46,834	4,219	17,789	22,006	9,330	16,060	24,800	3.16	...	
					621,821	233,351	125,170	152,761	152,761	277,910	112,935	164,081	291,921	...	...
Jind State	853,013	809,258	719,809		219,833	64,009	20,113	31,711	57,877	57,877	30,219	24,712	54,949	1.10	35.44
				Total	8,200	3,071	17,163	25,767	(b) 46,660	15,117	19,410	(c) 33,457	...	...
					227,132	63,671	43,336	61,191	104,917	104,917	61,683	47,153	108,837	...	...
Bikaner State	4,120,409	4,036,957	682,283		1,702	469	493	85	668	668	421	617	1,038	2.73	19.77
				Total	84,618	17,369	12	2,156	3,168	1,693	6,593	8,286	2.92	19.66	
					30,380	17,769	495	3,211	3,740	3,740	2,184	6,929	9,113	...	...
Patiala State	3,704,770	3,162,619	2,902,907		179,000	69,301	35,119	28,611	63,719	63,719	30,709	33,413	64,122	10.11	29.23
				Total	318,862	109,618	2,4110	382,963	537,295	2,2114	270,733	472,947	...	...
					492,929	167,910	339,727	411,507	(d) 651,031	248,822	248,822	201,674	(e) 453,496	...	...
					2,161	1,882	721	797	1,614	1,614	713	764	1,477	...	...
Kalsia State	121,752	87,503	70,267	Western Jumna Canal Sirhind Canal	12,900	3,231	1,311	2,260	3,573	1,524	1,381	2,905	...	...
					15,360	4,013	2,005	3,650	5,661	5,661	2,007	2,135	4,142	...	...
					299,163	70,567	23,735	35,283	63,998	26,619	26,619	29,401	56,020	9.11	27.19
Ludhiana	894,173	818,033	729,236	Sirhind Canal	1,234,244	344,657	171,194	412,721	657,189	219,494	301,591	520,735	6.53	29.12	
Ferozepore	2,365,179	2,442,628	2,227,676		117,373	38,503	38,503	64,570	(f) 103,382	12,163	12,163	17,337	(g) 59,473	...	...
Nasir State	629,470	618,341	506,707		231,137	70,709	31,637	74,472	169,359	169,359	54,431	59,354	103,015	...	...
Faridkot State	406,210	380,153	271,035	Upper Bari Doab Canal									...	...
					690,192	231,475	161,301	209,525	371,129	155,455	169,320	169,320	313,644	12.61	31.71
Amritsar	894,067	860,119	751,441		127,639	62,140	47,031	33,444	70,598	39,122	39,122	24,580	63,702	13.51	23.37
Gurdaspur	1,168,297	913,753	824,637												

Lahore	1,746,771	1,519,087	1,170,109	...	Upper Bari Doab Canal	806,216	487,530	281,589	413,921	604,510	331,661	450,612	785,802	...	...	20 10
				...	Upper Sutlej Irrigation Canals	231,895	93,956	20,900	28,155	48,755	25,253	60,898	80,148	...	...	20 70
				...	Upper Chenab Canal	11,423	3,576	360	1,190	1,730	381	384	705	...	...	...
				...	Lower Bari Doab Canal	7,786	4,899	1,468	1,588	3,056	1,597	1,450	3,047	...	...	...
Montgomery	2,747,733	2,237,231	737,716	...	Total	1,167,369	589,460	807,917	444,131	749,071	805,891	538,369	809,260	...	...	...
				...	Upper Sutlej Irrigation Canals	617,911	232,228	113,897	110,104	223,991	155,481	204,050	359,533	...	...	...
				...	Ravi Irrigation Canals	...	...	...	...	...	43	768	798	...	...	...
				...	Hajwah Canal	811,083	510,139	92,370	13,406	226,476	80,353	60,932	1,49,715	...	...	...
Multan	3,811,214	3,401,956	1,112,873	...	Total	1,492,021	751,367	206,253	241,133	450,391	235,591	274,199	510,063	...	...	...
				...	Sindh Canal	314,159	150,000	117,999	153,131	273,150	130,677	191,982	331,639	...	...	...
				...	Chenab Irrigation Canals	380,313	290,990	84,107	90,378	170,493	103,977	115,421	210,308	...	...	...
				...	Lower Sutlej Irrigation Canals	9,518	250,940	109,870	146,203	256,163	114,846	173,868	314,788	...	...	...
Muzaftgarh	3,567,202	3,069,513	747,773	...	Hajwah Canal	...	...	...	1,021	27,383	18,431	36,791	55,214	...	...	...
				...	Lower Bari Doab Canal	439,323	27,517	31,136	32,726	63,862	21,482	12,080	36,442	...	...	...
				...	Total	2,018,952	827,517	315,376	192,469	778,015	431,267	530,212	961,511	...	...	...
				...	Muzaffargarh Irrigation Canals	67,492	350,000	137,937	2,037,1	377,311	151,690	226,859	378,510	...	...	...
Dera Ghazi Khan	2,475,185	2,304,192	1,137,219	...	Indus Irrigation Canal	422,923	361,709	1,09,124	97,517	335,641	150,212	67,650	233,892	...	...	...
				...	Lower Chenab Canal	707,050	328,724	1,55,241	457,171	512,144	169,578	319,551	484,439	...	...	...
				...	Upper Chenab Canal	1,223,140	413,782	1,22,634	13,628	262,556	96,503	75,662	172,367	...	...	...
				...	Total	1,927,450	772,310	277,891	456,709	774,891	266,383	395,423	651,806	...	...	...
Lyallpur	2,108,396	1,831,320	1,413,799	...	Lower Chenab Canal	1,403,701	989,401	498,450	1,079,074	1,497,534	415,008	1,061,295	1,526,870	...	...	...
				...	Upper Chenab Canal	95,283	61,411	8,120	19,045	27,165	5,116	8,717	13,868	...	...	...
				...	Total	1,537,994	1,050,932	416,570	1,098,119	1,514,699	420,121	1,09,012	1,540,163	...	...	...
				...	Lower Chenab Canal	1,330,419	109,519	88,429	105,692	284,121	98,426	108,018	296,471	...	...	...
Jhang	2,171,683	1,904,360	821,960	...	Muzaffargarh Irrigation Canals	...	...	...	12	61	12	83	125	...	...	...
				...	Lower Jhelum Canal	323,618	151,776	37,032	90,592	127,992	41,552	86,292	127,761	...	...	...
				...	Total	756,687	354,425	125,484	280,291	411,777	140,020	281,333	421,363	...	...	...
				...	Lower Jhelum Canal	520,190	511,642	175,697	517,329	692,998	194,358	186,738	680,696	...	...	...
Shahpur	3,072,642	2,598,316	1,275,362	...	Sutlej (Imperial) Canals	62,551	43,900	9,429	17,330	26,759	16,238	42,607	43,607	...	...	...
				...	Shahpur (Provincial) Canals	53,253	24,170	4,527	14,347	18,894	19,846	10,515	30,861	...	...	...
				...	Total	933,389	397,712	180,625	519,025	739,651	230,442	521,312	751,754	...	...	...
				...	Lower Jhelum Canal	18,647	12,501	1,158	9,480	13,586	4,476	8,662	13,038	...	...	...
Gujrat	1,451,020	1,167,298	880,572	...	Upper Chenab Canal	171,637	31,133	27,814	6,047	33,891	18,887	6,000	24,887	...	...	...
				...	Total	10,078,311	7,530,537	3,242,185	5,653,626	8,084,811	3,650,858	5,312,183	8,963,041	...	...	...
				...	Grand Total									...	...	...
			

(a) Columns 6 and 7 exclude the "cultivable area commandeered" and "not at present proposed to be annually irrigated" by the Native States Branches of the Sindh Canal.

(b) Includes 14,500 acres irrigated on the Native States Branches of the Sindh Canal.
 (c) Ditto 31,710 ditto
 (d) Ditto 17,224 ditto
 (e) Ditto 29,639 ditto
 (f) Ditto 27,636 ditto
 (g) Ditto 26,433 ditto

and 43,419 acres by the Sindh Branch, Western Indus Canal, in the Punjab State.
 ditto
 ditto

//I. F.

STATEMENT SHOWING OCCUPIER'S RATE AND OWNER'S RATE IN FORCE ON THE CANALS IN THE PUNJAB DURING THE YEAR 1915-16.

Authority.	Class.	Nature of crops.	RATE PER ACR.		Per
			Flow.	Lift.	
			Rs. A. P.	Rs. A. P.	
		WESTERN JUMNA CANAL INCLUDING SIRSA BRANCH.			
		OCCUPIER'S RATE.			
Irrigation Branch Notification No. 0250 R. L., dated 24th August 1910.	I	Sugarcane	9 0 0	6 0 0	Crop.
	II	Rice and water-nuts	6 8 0	4 0 0	Do.
	III	Tobacco, poppy, vegetables, gardens and orchards, drugs and spices	5 8 0	8 8 0	Gardens and orchards per half year; the rest per crop.
	IV	Cotton, indigo, and all rabi crops, except gram and masur, maize	4 0 0	2 8 0	Crop.
	V	All other kharif crops, gram and masur	2 8 0	1 8 0	Do.
Irrigation Branch Notification No. 620 R. L., dated 14th May 1913.	VI	Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest.	1 0 0	0 8 0	Watering.
		Crops grown on the moisture of a previous crop			Crop.
		LOWER CHAUTANG NALA CANAL.			
		OCCUPIER'S RATE.			
Irrigation Branch Notification No. 1631 R. L., dated 27th April 1900.	I	Sugarcane, rice, water-nuts	4 2 0	2 12 0	Crop.
	IV	Cotton, indigo, maize	2 8 0	1 10 8	Do.
	V	Other kharif crops	1 12 0	1 2 8	Do.
	VII	Special rate.—Single watering before ploughing for rabi followed by a crop	1 2 0	0 12 0	Do.
		SIRHIND CANAL.			
		Zone I.			
		<i>All lands irrigated by the British Branches of the Sirhind Canal with the exception of those situated in the Fazilka Tahsil of the Ferozepore District.</i>			
Irrigation Branch Notification No. 273 R. L., dated 21st December 1901.	I	Sugarcane	12 0 0	6 0 0	Crop.
	II	Rice, orchards, gardens, poppy, indigo, dyes, drugs and spices, water-nuts, maize, wheat, vegetables, except turnips	5 4 0	2 10 0	Orchards and gardens per half-year; the rest per crop.
	III	Cotton, chillies, melons, tobacco, fibres, barley, oil-seeds, berse, senji, all non-fodder crops in kharif and rabi not specified	4 0 0	2 8 0	Crop.
	IV	Bajra, jowar, earli, moth, mung, makh, guar, chana, masur, gram, turnips, peas, and all kharif and rabi fodder crops not specified.	3 4 0	1 10 0	Do.
	V	Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest	1 8 0	0 12 0	Each watering.
Irrigation Branch Notification No. 624 R. L., dated 12th May 1913.		Also crops grown on the "mudh" of a previous crop			Crop.
	VI	Special rates which may be made applicable to channels selected by the Local Government:— A single watering before ploughing followed by a rabi crop	2 4 0	1 2 0	

**STATEMENT SHOWING OCCUPIER'S RATE AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16—CONTINUED.**

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per
			Flow.	Lift.	
			Rs. A. P.	Rs. A. P.	
		SIRHIND CANAL—CONCLUDED.			
		ZONE II.			
		<i>All lands irrigated by the British Branches of the Sirhind Canal in the Fazilka Tahsil of the Ferozepore District.</i>			
Irrigation Branch Notification No. 273 R. I., dated 21st December 1904.	I	Sugarcane	10 0 0	5 0 0	Crop.
	II	Rice, orchards, gardens, poppy, indigo, dyer, drugs and spices, water-nuts, maize, wheat, vegetables (except turrips)	5 0 0	2 8 0	Orchards and gardens per half year; the rest per crop.
	III	Cotton, chillie, melons, tobacco, fibres, barley, oil-seeds, kharra, senji, all non-fodder crops in kharif and rabi not specified	8 12 0	1 14 0	Crop.
	IV	Pajri, jowar, chhari, moth, mung, mash, guar, chhina, masur, gram, turnips, peas and all kharif and rabi fodder crops not specified.	3 0 0	1 8 0	Do.
Irrigation Branch Notification No. 624 R. I., dated 12th May 1913.	V	Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest	1 8 0	0 12 0	{ Each watering.
		Also crops grown on the "wadhi" of a previous crop			{ Crop.
		<i>All lands irrigated by other than the British Branches of the Sirhind Canal.</i>			
Irrigation Branch Notification No. 6616 R. I., dated 27th November 1893.	I	Sugarcane, rice, water-nuts	7 8 0	5 0 0	Crop.
	II	Gardens, orchards, tobacco, poppy, vegetables, indigo, maize	4 8 0	3 0 0	Do.
	III	Cotton, fibres, all dyer (except indigo), all rabi crops (except gram and masur)	3 12 0	2 8 0	Do.
	IV	All kharif crops not specified above and rabi crops of gram and masur	2 10 0	1 12 0	Do.
Irrigation Branch Notification No. 674 R. I., dated 12th May 1913.	V	Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest	0 12 0	0 8 0	Each watering.
	VI	Special rate which may be made applicable to channels selected by the Local Government.			
		A single watering before ploughing for rabi followed by a rabi crop	1 8 0	1 0 0	Crop.

**STATEMENT SHOWING OCCUPIER'S RATE AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16—CONTINUED.**

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per
			Flow.	Lift.	
			Rs. A. P.	Rs. A. P.	
		UPPER BARI DOAB CANAL.			
		OCCUPIER'S RATE.			
Irrigation Branch Notification No. 2621 I., dated 10th June 1891.	I	Sugarcane and water-nuts	7 1 0	8 8 8	Crop.
	II	Rice	6 0 10	8 0 5	Do.
	III	Orchards and gardens, tobacco, poppy and other drugs, vegetables, melons	4 8 8	2 4 4	Orchards and gardens per half-year; the rest per crop.
	IV	All dyes, fibres and oilseeds; all rabi crops except gram and masur	3 12 6	1 14 3	Crop.
	V	All kharif crops not specified above; rabi crops of gram and masur; all fodder crops	2 12 5	1 6 2½	Do.
	VI	Special rates, which may be made applicable to channels selected by the Local Government: a single watering before ploughing for rabi followed by a crop	2 0 4	1 0 2	Do.
Irrigation Branch Notification No. 628 R. I., dated 12th May 1913.	VII	A single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest	1 0 2	0 8 1	Each watering. Crop.
		Crops grown on the "wadā" of a previous crop			
Irrigation Branch Notifications No. 349 R. I., dated 26th March 1907; No. 698 R. I., dated 11th December 1907; No. 930 R. I., dated 2nd July 1908.	VIII	<i>Village plantations on areas to which the provisions of Act III of 1893 have been extended and District Board plantations within the Chunian Colony.</i>			
		For any number of waterings in the kharif season	1 3 4	0 9 8	Half-year.
		For one watering in rabi season	1 3 4	0 9 8	Do.
		For two or more waterings in rabi season	2 11 7	1 6 0	Do.
		LOWER BARI DOAB CANAL.			
		OCCUPIER'S RATE.			
Irrigation Branch Notification No. 547 R. I., dated 23rd April 1913.	I	Cane and water-nuts	9 0 0	4 8 0	Crop.
	II	Rice	7 8 0	8 12 0	Do.
	III	Orchards, gardens, tobacco, poppy, indigo, drugs, vegetables, melons and wheat	5 0 0	2 8 0	Orchards and gardens per half year; rest per crop.
	IV	Cotton, fibres, dyes (other than indigo) oilseeds and all rabi crops, except wheat, gram, masur, senji, maina and turnips	4 0 0	2 0 0	Crop.
	V	All kharif crops not otherwise specified	3 0 0	1 8 0	Do.
	VI	(a) Gram, masur, senji, turnips and maina	2 4 0	1 2 0	(a) Crop (b) and (c) acre.
		(b) Crops grown on the "wadā" of a previous crop.			
		(c) Single watering before ploughing for rabi followed by a rabi crop to be applicable only to channels selected by the Local Government.			
	VII	Grass, village and District Board plantations—			
		For any number of waterings in kharif season.	1 4 0	0 10 0	Half-year.
		For one watering in rabi season	1 4 0	0 10 0	Do.
		For two or more waterings in rabi season	2 8 0	1 4 0	Do.
	VIII	(a) Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest.	0 8 0	0 4 0	Acre.
		(b) Hemp (sua) and indigo which has been ploughed in as green manure before the 15th September.			

**STATEMENT SHOWING OCCUPIER'S RATE AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16—CONTINUED.**

Authority,	Class.	Nature of crops.	RATE PER ACRE.		Per
			Flow.	Lift.	
			Rs. A. P.	Rs. A. P.	
Irrigation Branch Notification No. 6223 R. I., dated 8th August 1912.	UPPER CHENAB CANAL.				
	OCCUPIER'S RATE.				
	I	Cane and water-rents	9 0 0	4 8 0	Crop.
	II	Rice	7 8 0	3 12 0	Do.
	III	Orchards, gardens, tobacco, poppy, indigo, drugs, vegetable, melons and wheat	5 0 0	2 8 0	Orchards and gardens per half year; rest per crop.
	IV	Cotton, fibres, dyes (other than indigo), oilseeds and all rabi crops, except wheat, gram, masur, senjl, malna and turnips	4 0 0	2 0 0	Crop.
	V	All kharif crops not otherwise specified	3 0 0	1 8 0	Do.
	VI	(a) Gram, masur, senjl, turnips and malna	2 4 0	1 2 0	(a) Crop (b) and (c) acre.
		(b) Crops grown on the "wadk" of a previous crop.			
		(c) Single watering before ploughing for rabi followed by a rabi crop, to be applicable only to channels selected by the Local Government.			
Irrigation Branch Notification No. 55 R. I., dated 13th January 1913.	VII	Grass, village and District Board plantations—			
		For any number of waterings in the kharif season... ..	1 4 0	0 10 0	Half-year.
		For one watering in rabi season	1 4 0	0 10 0	Do.
		For two or more waterings in rabi season	2 8 0	1 4 0	Do.
	VIII	(a) Single watering before ploughing not followed by a canal-irrigated crop in the same or the next harvest.	0 8 0	0 4 0	Acre.
		(b) Hemp (son) and indigo which has been ploughed as green manure before the 15th September.			
	LOWER CHENAB CANAL.				
	OCCUPIER'S RATE.				
	Applicable to—				
	(a) all estates in the Gujranwala District which were established before the 1st January 1892 ;				
(b) all estates in the Jhang District which were established before 1st January 1892, except those which were transferred from the Montgomery to the Jhang District by Revenue and Agriculture Notification No. 370 of 4th May 1899; and such proprietary wells as are now or may hereafter be included within the boundaries of the Colony mauzas ;					
(c) all estates in the Gujra and Montgomery tahsils of the Montgomery District which were established before 1st January 1891; and					
(d) all estates in the Multan and Lahore Districts which were established before 1st April 1902.					

**STATEMENT SHOWING OCCUPIER'S RATE AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16—CONTINUED.**

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per
			Flow.	Lift.	
			Rs. A. P.	Rs. A. P.	
		LOWER CHENAB CANAL—CONTINUED.			
		OCCUPIER'S RATE—continued.			
Irrigation Branch Notification No. 017 R. I., dated 13th June 1903.	I	Sugarcane, water-nuts	8 0 0	4 4 0	Crop.
	II	Rice	6 12 0	3 10 0	Do.
	III	Orchards, gardens, tobacco, poppy, indigo, drugs, vegetables, melons	5 8 0	3 0 0	Orchards and gardens per half-year; the rest per crop.
	IV	Cotton, fibres, dyes (other than indigo), oilseeds, maize and all rabi crops (except gram and masur)	4 4 0	2 8 0	Crop.
	V	All kharif crops not otherwise specified, and gram and masur	3 0 0	1 12 0	Do.
Irrigation Branch Notification No. 636 R. I., dated 12th May 1913.	VI	Single watering before ploughing; not followed by a canal-irrigated crop in the same or next harvest	1 12 0	1 2 0	Each watering.
		Also crops grown on the "wadā" of a previous crop			Crop.
	VII	Single watering before ploughing for rabi followed by a rabi crop, to be applicable only to channels selected by the Local Government	3 4 0	1 6 0	Acre.
Irrigation Branch Notification No. 0141 R. I., dated 12th October 1903.	VIII	Grass—			
		For any number of waterings in the kharif season	1 4 0	0 10 0	Half-year.
		For one watering in the rabi season	1 4 0	0 10 0	Do.
		For two or more waterings in the rabi season	2 8 0	1 4 0	Do.
		<i>Applicable to estates other than those referred to in Notification No. 017 R. I., dated 13th June 1903, above.</i>			
Irrigation Branch Notification No. 32 I., dated 6th January 1892.	I	Sugarcane	7 8 0	3 12 0	Crop.
	II	Rice	6 4 0	3 2 0	Do.
	III	Orchards, gardens, tobacco, indigo, vegetables, poppy, dhania, zira, saunf, melons	5 0 0	2 8 0	Orchards and gardens per half-year; the rest per crop.
	IV	Cotton, fibres, dyes (other than indigo), oilseeds, maize and all rabi crops (except gram and masur)	8 12 0	1 14 0	Crop.
	V	All kharif crops not otherwise specified, and gram and masur	2 8 0	1 4 0	Do.
Irrigation Branch Notification No. 836 R. I., dated 12th May 1913.	VI	Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest	1 4 0	0 10 0	Each watering.
	VII	Also crops grown on the "wadā" of a previous crop			Crop.
Irrigation Branch Notifications No. 0141 R. I., dated 12th October 1903, and No. 313 R. I., dated 19th December 1905, and No. 701 R. I., dated 11th December 1907.	VIII	Grass, village plantations in Colony villages, and District Board plantations in the Colony—			
		For any number of waterings in the kharif season	1 4 0	0 10 0	Half-year.
		For one watering in the rabi season	1 4 0	0 10 0	Do.
		For two or more waterings in the rabi season	2 8 0	1 4 0	Do.

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per
			Flow.	Lift.	
Irrigation Branch Notification No. 0275 R. I., dated 26th August 1912		LOWER CHENAB CANAL—continued. OCCUPYER'S RATE—concluded. Applicable to the following estates selected by the Local Government :—	Rs. A. P.	Rs. A. P.	
	Division.	District.	Settlement assessment circle.	No. of Chaks and Branch.	
	Upper Gogera	Gujranwala	Gogera Branch I.	537, 538 and 539, Gogera Branch	
	Lower Gogera.	Lyalpur	Ditto ..	71 and part of 75 and 101, Gogera Branch	
	Lyalpur	Lyalpur.	Jhang Branch I	10" and half of 23 Jhang Branch	
		Jhang ...	Ditto ...	129, 130, 197, 101, 101, 14", 173, 183, 184 and 187, Jhang Branch	
	Lyalpur	Lyalpur.	Jhang Branch II.	324, 341, 345 and 396, Jhang Branch.	
		Jhang ...	Ditto ..	172, 173, 175, 176, 177, 178, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229 and 230, Jhang Branch.	
	Jhang .	Lyalpur ..	Jhang Branch III.	307, 308, 309, 401, 402, 410, 403, 410, 411, 412, 418 and 420, Jhang Branch.	
	Lyalpur	Jhang ...	Ditto	443, 444, 445, 417, 418, 419, 420, 421, and 422, Jhang Branch.	
		Lower Gogera.	Lyalpur ..	Gogera Branch I.	318, 207 and 249, Gogera Branch.
	Jhang ...	Ditto ...	Jhang Branch III.	421, 371, 374, 347, 378, 420 and 420, Jhang Branch.	
	Ditto ...	Jhang ...	Jhang Branch II.	170, Jhang Branch.	
	Lower Gogera.	Lyalpur	Gogera Branch II.	204, 225, 227, 328, 329, 310 and 329, Gogera Branch.	
	Burala ...	Ditto ..	Ditto	387, 401, 402, 603, 604, 605, 613, 615 and 616, Gogera Branch.	
	Khanl ...	Gujranwala	...	11, 122 and 186, Rakh Branch.	
	Upper Gogera.	Ditto ...	...	12, 13, 21, 30, 31, 34 and 40, Rakh Branch.	
	Ditto ...	Lyalpur ..	...	67, 61, 107 and 102, Rakh Branch.	
	Lyalpur	Ditto .	...	105, 211, 217, 235, 240 and 261, Rakh Branch.	
	Jhang ...	Jhang ...	...	405, 475, 476, 479, 480, 481, 484, 485, 486, 487, 488, 489, 490, 491, 492 and 493, Jhang Branch.	
	Burala ...	Lyalpur .	...	147, 158, 161, 164, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182 and 183, Burala Branch.	
	Lower Gogera.	Ditto ..	...	221, Gogera Branch, Lower.	
	Upper Gogera.	Ditto ...	...	224, Gogera Branch, Upper	
Irrigation Branch Notification No. 112 R. I., dated 30th January 1912	IV	Cotton, fibres, dyes, other than indigo, oilseeds, malvo, and all mil crops except gram and moor.	3 0 0	1 12 0	Crop.
	V	All kharif crops not otherwise specified and gram and moor.	2 0 0	1 4 0	Do.

**STATEMENT SHOWING OCCUPIER'S RATE AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16—CONTINUED.**

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per
			Flow.	Lift.	
			Rs. A. P.	Rs. A. P.	
Irrigation Branch Notification No. 120 R. I., dated 13th June 1903.		LOWER CHENAB CANAL—CONCLUDED.			
		OWNER'S RATE.			
		<i>Rule for the imposition of an Owner's Rate upon the owners of lands irrigated from the Lower Chenab Canal.</i>			
		<i>Rate.</i>			
		The Owner's Rate shall be at the rate of one rupee per acre per crop irrigated, provided that no Owner's Rate shall be levied on any of the estates named below—			
		(a) Estates in the Gujranwala District which were established before the 1st January 1892,			
		(b) Estates in the Jhang District which were established before the 1st January 1892, except those which were transferred from the Montgomery to the Jhang District by Revenue and Agriculture Notification No. 270 of 4th May 1899; and such proprietary wells as are now or may hereafter be included within the boundaries of the Colony morzas.			
		(c) Estates in the Gujra and Montgomery tahsils of the Montgomery District which were established before the 1st January 1894.			
		(d) All estates in the Multan and Lahore Districts which were established before the 1st April 1903.			
		LOWER JHELUM CANAL.			
		OCCUPIER'S RATE.			
Irrigation Branch Notification No. 07 R. I., dated 28th May 1902.	I	Sugarcane, water-melons	10 0 0	5 0 0	Crop.
	II	Rice	6 4 0	3 2 0	Do.
	III	Orchards, gardens, tobacco, indigo, vegetables, drugs, poppy and melons	5 0 0	2 8 0	Orchards and gardens per half-year; the rest per crop.
	IV	Cotton, fibres, dyes (other than indigo), oilseeds, maize and all rabi crops except gram and masur	3 12 0	1 14 0	Crop.
	V	All other kharif crops, gram and masur, and all crops grown for fodder	2 8 0	1 4 0	Do.
Irrigation Branch Notification No. 632 R. I., dated 12th May 1913.	VI	Single watering before ploughing, not followed by a canal-irrigated crop in the same or next harvest	1 4 0	0 10 0	Each watering.
		Crops grown on the "sardh" or moisture of a previous crop.			Crop.
	VII	Single watering, before ploughing for rabi followed by a rabi crop, to be applicable only to channels selected by the Local Government	2 8 0	1 4 0	Crop.
Irrigation Branch Notifications No. 0121 R. I., dated 21st September 1903, No. 310 R. I., dated 19th December 1905, and No. 695 R. I., dated 11th December 1907.	VIII	Grass, village plantations in Colony villages and District Board plantations in the Colony—			
		For any number of waterings in the kharif season	1 4 0	0 10 0	Half-year.
		For one watering in the rabi season	1 4 0	0 10 0	Ditto.
		For two or more waterings in the rabi season	2 8 0	1 4 0	Ditto.

**STATEMENT SHOWING OCCUPIER'S RATE AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16—CONTINUED.**

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per
			Flow.	Lift.	
			Rs. A. P.	Rs. A. P.	
		LOWER JHELUM CANAL—CONCLUDED.			
		OCCUPIER'S RATE—concluded.			
		<i>Applicable to—</i>			
		(1) All villages or portions of villages in the Bhera Tahsil irrigated from the Khadir Feeder or Khadir Distributary.			
		(2) All villages in the Shahpur Tahsil, except Sher Muhammadwala and Wajawal and except all villages or portions of villages irrigated from the Sahiwal Feeder including the Sahiwal Distributary and Gondal Distributary.			
		(3) The following villages in the Sargodha Tahsil:—			
		Northern Branch Chaks—			
		Nos. 89, 93, 94, 95, 103, 104, 105, 108, 110, 112, 115 to 174 inclusive.			
		Southern Branch Chaks—			
		Nos. 60, 61, 63, 131, 133, 134, 135, 137 to 141 inclusive and Chak Jodh on the Khadir Distributary.			
Irrigation Branch Notifications No. 403 R. I., dated 20th March 1913, and No. 438 R. I., dated 3rd April 1913.	I	Sugarcane and water-nuts	7 8 0	3 12 0	Crop.
	II	Rice	4 0 0	2 0 0	Do.
	III	Orchards, gardens, indigo, vegetables, dregs and melons	5 0 0	2 8 0	Orchards and gardens per half-year; the rest per crop.
	IV	Wheat	3 4 0	1 10 0	Crop.
	V	Cotton and oilseeds	3 0 0	1 8 0	Do.
	VI	Fibres (other than cotton), dyes (other than indigo), mawe and all rabi crops other than wheat, gram and masur	2 8 0	1 4 0	Do.
	VII	All other kharif crops, gram, masur and all crops grown for fodder (including toroips)	3 0 0	1 0 0	Do.
	VIII	Single watering before ploughing not followed by a canal-irrigated crop in the same or next harvest	1 4 0	0 10 0	Each watering. Crop:
		Crops grown on "wadh" or moisture of a previous crop			
	IX	Single watering before ploughing for rabi followed by a rabi crop, to be applicable only to channels selected by the Local Government	2 8 0	1 4 0	Crop.
Irrigation Branch Notification No. 632 R. I., dated 12th May 1913.	X	Grass, village plantations in Colony villages and District Board plantations in the colony—			
		For any number of waterings in the kharif season	1 4 0	0 10 0	Half-year.
		For one watering in the rabi season	1 4 0	0 10 0	Do.
		For two or more waterings in the rabi season	2 8 0	1 4 0	Do.

**STATEMENT SHOWING OCCUPIER'S RATE AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16—CONTINUED.**

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per
			Flow.	Lift.	
			Rs. A. P.	Rs. A. P.	
		LOWER SOHAG AND PARA CANALS.			
		OCCUPIER'S RATE.			
Irrigation Branch Notification No. 423 I., dated 7th March 1893.	I	Rice, gardens and pepper ...	3 4 0	1 10 0	Acre.
	II	Cotton, sugarcane, melons, til and hemp ...	2 4 0	1 2 0	Do.
	III	All other kharif crops ...	1 4 0	0 10 0	Do.
	IV	All matured rabi crops, plantations and vegetables.	1 0 0	0 8 0	Do.
	V	Failed rabi crops and grasses ...	0 8 0	0 4 0	Do.
		UPPER SUTLEJ INUNDATION CANALS.			
		MORADABAD DISTRICT.			
		OCCUPIER'S RATE.			
Irrigation Branch Notification No. 422 I., dated 7th March 1893.	I	Rice, gardens and pepper ...	3 4 0	1 10 0	Acre.
	II	Cotton, sugarcane, melons, til and hemp ...	2 4 0	1 2 0	Do.
	III	All other kharif crops ...	1 4 0	0 10 0	Do.
	IV	All matured rabi crops, plantations and vegetables.	1 0 0	0 8 0	Do.
	V	Failed rabi crops and grasses ...	0 8 0	0 4 0	Do.
		LANOH DISTRICT.			
		OCCUPIER'S RATE.			
Irrigation Branch Notification No. 1606 I., dated 18th April 1900.	I	Rice, gardens and pepper ...	3 4 0	1 10 0	Acre.
	II	Cotton, sugarcane, melons, til and hemp ...	2 4 0	1 2 0	Do.
	III	All other kharif crops ...	1 4 0	0 10 0	Do.
	IV	All matured rabi crops, plantations and vegetables.	1 0 0	0 8 0	Do.
	V	Failed rabi crops and grasses ...	0 8 0	0 4 0	Do.
		SIDHNAI CANALS.			
		WATER-RATES.			
		Kabirwala and Mullan tahsils.			
Punjab Civil (Revenue) Department letter No. 269, dated 11th December 1899.	I	Rice, fruits and vegetables, pepper, cotton, til, sugarcane, wheat and tobacco ...	3 5 0		
	II	Other kharif crops ...	2 6 0		
	III	Other rabi crops ...	2 2 0		
		NOTE.—"Lift" rates to be half the "flow" rates.			
		LOWER SUTLEJ INUNDATION CANALS.			
		OCCUPIER'S RATE.			
		Mailsi Canal and Branches; Muhammadwah-Sardarwah and Branches; Bahawalwah-Lodhran and Branches.			
Irrigation Branch Notification No. 53 R. I., dated 14th February 1903.	I	Rice, gardens and pepper ...	2 4 0	1 11 0	Acre of matured crop.
	II	Cotton, sugarcane and til ...	1 12 0	1 5 0	Ditto.
	III	Other kharif crops ...	1 8 0	1 2 0	Ditto.
	IV	Rabi crops ...	0 14 0	0 10 0	Ditto.
		NOTE.—Irrigation on grass lands may be assessed at half rabi rates at the discretion of the Deputy Commissioner.			

**STATEMENT SHOWING OCCUPIER'S RATE AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16—CONTINUED.**

Authority.	Class.	Nature of crop.	RATE PER ACRE.		Per
			Flow.	Lift.	
		CHENAB INUNDATION CANALS	Rs. A. P.	Rs. A. P.	
		OCCUPIER'S RATE.			
		<i>Gajjuhatta, Silandarabad-Silandarwah and Nilochanwah Canals.</i>			
Irrigation Branch Notification No. 2186 I., dated 24th November 1899.	I	Rice, gardens and pepper	2 4 0	1 11 0	Acre of matured crop.
	II	Cotton, sugarcane and til	1 12 0	1 5 0	Ditto.
	III	Other kharif crops	1 8 0	1 2 0	Ditto.
	IV	Rabi crops	0 14 0	0 10 0	Ditto
		NOTE.—Irrigation on grass lands may be assessed at half rabi rates at the discretion of the Deputy Commissioner.			
		<i>Mattihal, Daurana Langana and Wali Muhammad Canals.</i>			
Irrigation Branch Notification No. 01622 I., dated 26th September 1900.	I	Rice, gardens and pepper	2 4 0	1 11 0	Acre of matured crop.
	II	Cotton, sugarcane and til	1 12 0	1 5 0	Ditto.
	III	Other kharif crops	1 8 0	1 2 0	Ditto.
	IV	Rabi crops	0 14 0	0 10 0	Ditto.
		NOTE.—Irrigation on grass lands may be assessed at half rabi rates at the discretion of the Deputy Commissioner.			
		HAJIWAH CANAL.			
Irrigation Branch Notification No. 280 R. I., dated 15th November 1906.		In exercise of the power conferred by section 29 (1) of the Punjab Minor Canals Act, 1905 (Punjab Act III of 1905), His Honour the Lieutenant-Governor is pleased to direct that for all irrigation from the Hajiwah Canal the following rates shall be levied <i>per acre</i> actually matured, namely:—			
		WATER-RATES.			
	I	Rice, gardens and pepper	2 4 0	1 11 0	
	II	Cotton, sugarcane and til	1 12 0	1 5 0	
	III	Other kharif crops	1 8 0	1 2 0	
	IV	Rabi crops	0 14 0	0 10 0	
		Provided that on all irrigation, within the original grant of land made in the year 1880 to the late Ghulam Kadir Khan, of lands, the proprietary right in which is or may hereafter become vested—			
		(a) in the sons of lineal descendants of the said Ghulam Kadir Khan; or			
		(b) in Mian Muhammad Khan or Hafiz Muhammad Afzal Khan, the nephews of the said Ghulam Kadir Khan or their lineal descendants;			
		the rate <i>per acre</i> actually matured whether in the kharif or rabi, shall be limited to the following rates, namely:—			
		Rs. A. P.			
		Flow 0 12 0 <i>per acre.</i>			
		Lift 0 9 0 "			

**STATEMENT SHOWING OCCUPIERS' RATE AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16—CONTINUED.**

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per
			Flow.	Lift.	
Irrigation Branch Notification No. 269 R.L., dated 16th November 1905.	...	HAJIWAH CANAL—CONCLUDED.	P. A. P.	Rs. A. P.	
		WATER RATES—concluded.			
		In exercise of the power conferred by section 29 (1) of the Punjab Minor Canals Act (Punjab Act III of 1905), the Lieutenant-Governor is pleased to direct that the following rates shall be levied on the Hajiwah Canal, in the Multan and Montgomery districts, for the supply of water for purposes other than irrigation, viz. :—			
		<i>Purpose for which supplied.</i>	<i>Rate</i>		
			Rs. A. P.		
Irrigation Branch Notification No. 0235 R. L., dated 19th September 1906.	...	Brick-making and pisé wall building ...	0 3 0		100 cubic feet.
		Laying concrete or brick or stone masonry ...	0 2 0		Ditto.
		Metalling roads ...	10 0 0		Nil.
		Water supplied in bulk ...	1 0 0		2,500 cubic feet.
		Watering road-side or avenue trees ...	2 8 0		Canal mile of 5,000 feet for kharif crop.
Irrigation Branch Notification No. 106 R. L., dated 30th January 1912.	...		5 0 0		Canal mile of 5,000 feet for rabi crop.
		Proviso.—Except within the limits of Civil Stations, Cantonments and Municipalities no charge shall be made for water used for the manufacture of bricks not subsequently burnt in a kiln or for pisé wall building, if taken from a water-course or tank lawfully supplied from a canal, and if such bricks or walls are for buildings owned by cultivators having a share in the water-course, and no rate shall be levied for water supplied in bulk, under proper authority, to village tanks exclusively used for domestic purposes or for watering cattle.			
		INDUS INUNDATION CANALS.			
		OCCUPIERS' RATES.	RATE PER ACRE.		
			On the Kakra Canal.	On all other canals.	
Irrigation Branch Notification No. 0376 R. L., dated 2nd October 1912.	...		Rs. A. P.	Rs. A. P.	
		Kharif flow ...	1 8 0	1 0 0	
		" lift ..	0 12 0	0 8 0	
		Rabi flow ...	0 12 0	0 8 0	
		" lift ...	0 6 0	0 4 0	
		Special rate for rice in the Dem Ghazi Khan and Jampur tahsil ...		1 4 0	
		Provided that all lands irrigated from the Musuvah Canal lying in the villages of Beri and Bet Ladhia shall be entirely exempt from all occupiers' rates and that all lands irrigated from the said canal lying in the villages of Mari Pachadi and Mori Darmiyani shall be subject to only half of the above-mentioned occupier's rate :			
		Provided also that when irrigation is done by canal and torrent or canal and river flood water mixed and would have been done in any case without the aid of the canal, occupier's rates shall not be charged in respect of such irrigation. When, however, torrent or river flood waters are carried by the canal and managed and distributed as part of the canal supply, the above-mentioned occupiers' rates shall be charged in respect of any irrigation done by such waters.			

**STATEMENT SHOWING OCCUPIER'S RATE AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16,—CONTINUED.**

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per				
			Flow.	Lift.					
		INDUS INUNDATION CANALS—CONCLUDED.	Rs. A. P.						
		OCCUPIERS' RATES—concluded.							
Irrigation Branch Notification No. 0949 R. I., dated 4th October 1915.	...	In exercise of the powers conferred by section 75 of the Northern India Canal and Drainage Act, VIII of 1873, as amended by Act IV of 1914, the Lieutenant-Governor of the Punjab is pleased to direct the publication of the following Schedule of Rates to be charged for irrigation from the Dera Ghazi Khan High Level Supply Channel, taking out from the Monka Canal of the Indus Inundation Canals Series and for the supply of water for purposes other than irrigation:—							
		All crops	6	0	0	Acre.			
		Miscellaneous rates for purposes other than irrigation.							
		Brick-making and pier wall building ...	0	8	0	100 cubic feet.			
		Laying concrete and brick or stone masonry ...	0	2	0	Ditto.			
		Metalling roads	10	0	0	Mil.			
		Water supplied in bulk	1	0	0	2,500 cubic feet.			
		Watering road-side or avenue trees	5	0	0	Canal mile of 5,000 feet per crop.			
		SHAHPUR (IMPERIAL) INUNDATION CANALS.							
		OCCUPIERS' RATES.							
		For the Canals in Shahpur and Bhera tahsils.							
			Rs. A. P.	Rs. A. P.					
Irrigation Branch Notification No. 1370 I., dated 19th November 1894.	..	Rice	3	8	0	1	4	0	Acre.
		All other crops	2	8	0	1	4	0	Do.
		Grass lands	1	4	0	1	4	0	Do.
		SHAHPUR (PROVINCIAL) INUNDATION CANALS.							
		OCCUPIERS' RATES.							
		Ranikwah.							
Settlement Report, 1887—1894, paragraph 100.	...	Rice	3	8	0	1	4	0	Acre.
		All other crops	2	8	0	1	4	0	Do.
		Grass lands	1	4	0	1	4	0	Do.
		Corbyn wah.							
		All crops	1	8	0	0	12	0	Acre.
		Grass lands	0	2	0	0	1	0	Do.
		MUZAFFARGARH INUNDATION CANALS.							
		OCCUPIERS' RATES.							
		Chenab Canals.							
Irrigation Branch Notification No. 052 R. I., dated 7th July 1903, and No. 100 P. I., dated 2.3.16.	I	Rice, gardens and pepper	1	2	0	1	2	0	Acre of matured crop.
	II	Cotton, sugarcane and indigo	1	8	0	0	12	0	Ditto.
	III	Other kharif crops	1	2	0	0	9	0	Ditto.
	IV	Rabi crops	0	12	0	0	6	0	Ditto.
Irrigation Branch Notification No. 431 R. I., dated 4th May 1907.	V	Grass lands	0	6	0	0	3	0	Ditto.
		NOTE.—The rate for grass lands to be assessed at the discretion of the Deputy Commissioner.							

NOTE.—The rate for grass lands to be assessed at the discretion of the Deputy Commissioner.

**STATEMENT SHOWING OCCUPIER'S RATE/AND OWNER'S RATE IN FORCE ON THE
CANALS IN THE PUNJAB DURING THE YEAR 1915-16—CONTINUED.**

Authority.	Class.	Nature of crops.	RATE PER ACRE.		Per
			Flow.	Lift.	
		MUZAFFARGARH INUNDATION CANALS—concluded.	Rs. A. P.	Rs. A. P.	
		OCCUPIERS' RATES—concluded.			
		<i>Indus Canals.</i>			
Irrigation Branch Notifi- cation No. 652 R. I., dated 7th July 1903, and No. 1127 R. I., dated 2.2.16	I	Rice, gardens and pepper ...	1 8 0	0 12 0	Acres of matured crop.
	II	Cotton, sugarcane and indigo ...	1 0 0	0 8 0	Ditto.
	III	Other kharif crops ...	0 12 0	0 6 0	Ditto.
	IV	Rabi crops ...	0 8 0	0 4 0	Ditto.
Irrigation Branch Notifi- cation No. 484 R. I., dated 4th May 1907.	V	Grass lands ...	0 4 0	0 2 0	Ditto.
		NOTE.—The rate for grass lands to be assessed at the discretion of the Deputy Commissioner.			
		GHAGGAR INUNDATION CANALS. (BRITISH).			
		OCCUPIERS' RATES.			
Irrigation Branch Notifi- cation No. 348 R. I., dated 27th November 1903.	I	Sugarcane ...	8 8 0	4 4 0	Acres matured per crop.
	II	Rice and water-nuts ...	6 0 0	3 0 0	Ditto.
	III	All other crops ...	2 8 0	1 4 0	Ditto.
		PROVISO.—Provided that no occupiers' rates shall be levied in respect of any land for the time being assessed to fluctuating land revenue.			
		DELHI AND GURGAON WORKS.	<i>Rate per acre.</i>		
		OCCUPIERS' RATES.	Rs. A. P.		
Irrigation Branch Notifi- cation No. 653 I., dated 6th April 1893.	...	All crops ...	0 6 4½		Acres.
		Grass ...	0 3 3½		Dc.
		NOTE.—This schedule is the same as that pub- lished in Notification No. 6253 I., dated 5th December 1873, which is hereby superseded.			
		SCHEDULE OF RATES FOR SUPPLY OF WATER FOR PURPOSES OTHER THAN IRRIGATION.			
		WESTERN JUMNA CANAL, UPPER BARI DOAB, CANAL, SIRIND CANAL, LOWER CHENAB CANAL, LOWER JHELUM CANAL, UPPER CHENAB CANAL, LOWER BARI DOAB CANAL, UPPER SETLJ CANALS, LOWER SONAH AND PARA CANALS, SINDHAI AND SUBSIDIARY CANALS, LOWER SETLJ AND CHENAB CANALS, INDUS CANALS, MUZAFFARGARH CANALS, SHAHPUR CANALS.			
Irrigation Branch Notifi- cations Nos. 651 I., dated 5th April 1898, 276 R. I., dated 16th December 1902, 540 R. I., dated 22nd April 1913, and 6105 R. I., dated 26th June 1913.	...	Brick-making and pier/wall building ...	0 3 0		100 cubic feet.
		Laying concrete and brick or stone masonry ...	0 2 0		Ditto.
		Metalling roads ...	10 0 0		Nil.
		Water supplied in bulk ..	1 0 0		2,500 cubic feet.
Irrigation Branch Notifi- cation No. 325 R. I., dated 29th October 1906.	...	Watering roadside or avenue trees ...	2 8 0 5 0 0		Canal mile of 5,000 feet, for kharif crop. Canal mile of 5,000 feet, for rabi crop.
		PROVISO.—Except within the limits of Civil Stations, Cantonments and Municipalities no charge will be made for water used for the manufacture of bricks not subsequently burnt in a kiln or for pier/wall building, if taken from a water-course or tank lawfully supplied from a canal and if such bricks or walls are for buildings owned by cultivators having a share in the water-course.			

PUNJAB PROVINCE.

IRRIGATION BRANCH

ADMINISTRATIVE ACCOUNTS

FOR THE YEAR

1915-16.

No. Irr. 15-4—

Dated _____ 1916.

Copy forwarded to _____

Accountant-General, Punjab.

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MINOR WORKS AND NAVIGATION.

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ERRATA TO ADMINISTRATIVE ACCOUNTS, PUNJAB PROVINCE, FOR 1915-16.

Page No.	Line.	Column.	For.	Read.
	<i>Canals under construction.</i>			
2	Lower Bari Doab Canal ..	2	2,16,69,940	2,13,69,940
"	Ditto ..	4	2,23,28,402	2,20,28,402
"	Total Canals under construction..	2	10,10,41,805	10,07,41,805
"	Ditto ..	4	10,39,81,985	10,36,81,985
"	Grand Total Canals in operation and under construction.			
"	Imperial ..	2	21,82,18,949	21,79,18,949
"	Ditto ..	4	22,53,98,576	22,50,98,576
46	II Establishment.			
"	Total ..	5	35,49,734	32,49,734
"	Grand Total ..	5	2,19,51,940	2,16,51,940
"	Net Total ..	5	2,16,69,940	2,13,69,940

SUBSTITUTE FOR FORM No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE OF THE LOWER BARI DOAB CANAL.—(Page 48.)

PARTICULARS.	CURRENT SANCTIONS.				REMARKS.
	Charges to date.	Amount of Sanctioned Estimate.	Unspent Balance of Estimate.	Total charges to date against old and current sanctions.	
	Rs.	Rs.	Rs.	Rs.	
DIRECT CHARGES—					Revised Estimate sanctioned in Secretary of State's Despatch No. 5 P. W., dated the 17th February 1911. Rs. 3,00,000 under Establishment transferred to Upper Jhelum Canal as per Government of India, P. W. D. No. 645 A.I., dated the 9th June 1915.
Works ..	1,55,23,300	1,63,86,298	8,62,992	1,55,23,300	
Establishment ..	27,30,133	32,49,734	5,19,601	27,50,133	
Tools and Plant ..	15,12,988	17,15,00	2,02,920	15,12,988	
Suspense Balances ..	9,62,469	3,00,000	- 6,62,469	9,62,469	
Total ..	2,07,28,890	2,16,51,940	9,23,044	2,07,28,890	
Less Receipts on Capital Account.	61,932	2,82,000	2,20,068	61,932	
Not Total ..	2,06,66,958	2,13,69,940	7,02,976	2,06,66,958	
INDIRECT CHARGES—					
Capitalized abatement of Land Revenue.	43,750	1,47,500	1,03,750	43,750	
Leave and Pension Allowances.	3,71,278	5,10,962	1,39,684	3,71,278	
Total ..	4,15,028	6,58,462	2,43,434	4,15,028	
GRAND TOTAL ..	2,10,81,986	2,20,28,402	9,46,410	2,10,81,986	

ADMINISTRATIVE ACCOUNTS

No. 1.—General Abstract of Financial Results showing the Estimated Cost of Construction and the Interest on the Debt incurred in respect

Name of Project.	ESTIMATED COST OF CONSTRUCTION.			CAPITAL OUTLAY INCLUSIVE OF INDIRECT			
	Direct charges.	Indirect charges.	Total.	During 1915-10.			Total to end of
				Direct charges.	Indirect charges.	Total.	Direct charges
PRODUCTIVE WORKS.							
<i>Canals in Operation.</i>	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
<i>Imperial.</i>							
Western Jumna Canal	1,67,36,923	8,10,045	1,75,46,968	14,027	1,032	15,059	1,68,82,347
Upper Bari Doab Canal	2,07,47,601	7,31,604	2,14,79,205	2,30,885	9,267	3,40,152	2,11,39,402
Sirhind Canal	2,43,90,260	12,10,544	2,56,00,802	63,970	174	64,144	2,43,45,111
Lower Chenab Canal	3,10,65,103	7,18,544	3,18,11,647	92,770	3,052	96,722	3,10,32,899
Upper Sutlej Inundation Canals including Lower Sohg and Para, Sidhnai Canals	10,96,822	1,00,592	17,97,414	11,324	278	11,602	17,17,364
Lower Jhelum Canal	12,47,657	40,217	12,87,874	—960	—	—066	12,00,744
Lower Jhelum Canal	1,83,96,782	5,68,206	1,89,63,988	13,673	827	14,300	1,55,70,611
Indus Inundation Canals	28,91,806	31,607	20,23,413	1,47,387	3,637	1,51,024	28,93,300
TOTAL IMPERIAL	11,71,77,144	42,30,447	12,14,16,591	6,82,670	18,967	7,01,637	11,48,68,948
<i>Contribution.</i>							
Western Jumna Canal	11,60,478	..	11,60,478	..	..	..	11,60,478
Sirhind Canal	1,43,90,535	..	1,43,90,535	58,854	..	58,854	1,43,02,005
TOTAL CONTRIBUTION	1,55,60,013	..	1,55,60,013	58,854	..	58,854	1,51,62,483
TOTAL CANALS IN OPERATION, IMPERIAL	11,71,77,144	42,30,447	12,14,16,591	6,82,670	18,967	7,01,637	11,48,68,948
Do. CONTRIBUTION	1,55,60,013	..	1,55,60,013	58,854	..	58,854	1,51,62,483
<i>Canals under construction.</i>							
Upper Chenab Canal	3,61,31,583	12,25,441	3,73,57,024	11,94,158	40,573	12,44,031	3,36,24,503
Lower Bari Doab Canal	2,16,69,040	6,58,462	2,23,28,402	8,92,123	38,848	9,30,981	2,06,66,904
Upper Jhelum Canal	4,32,40,282	10,56,277	4,42,96,559	18,94,901	48,779	10,43,740	4,15,81,296
TOTAL CANALS UNDER CONSTRUCTION	10,10,41,505	20,40,180	10,39,81,685	39,81,552	1,37,200	41,18,752	9,58,72,763
GRAND TOTAL CANALS IN OPERATION AND UNDER CONSTRUCTION. } IMPERIAL	21,82,18,948	71,70,627	22,53,89,576	46,61,222	1,56,167	48,20,384	21,07,41,711
.. } CONTRIBUTION	1,55,60,013	..	1,55,60,013	58,854	..	58,854	1,54,62,483

(a)—The seeming excess over estimate is due to suspense balances
 (b)—Excludes recoveries made by Native States and credited
 (c)—Excludes share of Accounts Establishment commencing from
 (d)—Includes Rs. 2,417 on account of owners' rates on Irrigated
 (e)—Includes Rs. 1,538 on account of owners' rates on Irrigated

LAHORE :

The 1st September 1916.

DEPARTMENT.

PUNJAB PROVINCE.

FOR THE YEAR 1915-16.

Minor Works, the capital outlay thereon, the Revenue derived therefrom, the working expenses of 1915-16.

DURING 1915-16.						WORKING EXPENSES AND MAINTENANCE DURING 1915-16, INCLUSIVE OF INDIRECT CHARGES NOS. 3 AND 6.			NET RESULT, EXCLUDING INTEREST, DIFFERENCE BETWEEN REVENUE AND WORKING EXPENSES.				Simple Interest during 1915-16.	NET RESULTS, INCLUDING INTEREST.			
Collected with Land Revenue.			Total.			Direct charges.	Indirect charges.	Total.	Excess revenue (surplus).	Excess expenditure (deficit).	Rate per cent.			Excess revenue (surplus).	Excess expenditure (deficit).	Rate per cent.	
Actual transactions of the year.	Adjustment on account of previous year.	Total.	Actual transactions of the year.	Adjustment on account of previous year.	Total.						Of excess revenue.	Of excess expenditure.					
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
15,407	..	15,407	92,201	..	92,201	40,513	3,374	52,887	30,314	..	16.20	..					
..	17,549	..	17,549	33,392	2,621	36,013	..	18,473	..	4.91					
15,407	..	15,407	1,00,741	..	1,00,741	82,903	5,005	88,908	30,314	18,473	3.52	..					
									20,341	..							
..	1	..	1	4,701	..	4,701	..	4,763	..	1.06					
3,11,338	..	3,11,338	6,21,746	..	6,21,746	2,70,993	14,531	2,85,524	3,36,186								
2,64,100	..	2,64,100	4,71,625	..	4,71,625	1,65,512	7,041	1,72,553	2,00,072								
3,70,284	..	3,70,284	6,46,213	..	6,46,213	3,40,985	17,892	3,58,877	2,88,236								
9,45,812	..	9,45,812	17,39,578	..	17,39,578	7,76,500	30,524	8,16,114	9,23,464								
6,457	..	6,457	36,359	..	36,359	38,207	2,566	40,653	..	4,694							
888	..	888	1,270	..	1,270	2,000	203	2,383	..	1,113							
7,346	..	7,346	37,629	..	37,629	40,387	2,040	42,427	..	5,707							

W. ALDER,

Accountant-General, Punjab.

IRRIGATION BRANCH

6

OFFICE OF
ADMINISTRATIVE ACCOUNTS

Western Jumna Canal

No. 2.—CAPITAL ACCOUNT FOR

HEADS OF ACCOUNT.	DIRECT CHARGES.									Cost of construction as now estimated (Construction Estimate closed on 31st March 1906.)	Expenditure against closed Estimates.
	IMPERIAL.			CONTRIBUTION.			TOTAL.				
	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.		
I.—WORKS.											
1. HEAD WORKS—	Rs.	Rs.	Rs.	Rs.	R.		Rs.	Rs.	Rs.		
B.—Land	4,710	..	4,710	..	..	..	4,710	..	4,710		
C.—Works	4,10,440	..	4,10,440	5,328	5,328	..	4,24,768	..	4,24,768		
K.—Buildings	30,023	2,388	42,311	..	..	..	30,023	2,388	42,311		
O.—Miscellaneous	13,530	..	13,530	..	..	..	13,530	..	13,530		
P.—Maintenance	24,830	..	24,830	..	..	..	24,830	..	24,830		
TOTAL	5,02,451	2,388	5,04,839	5,328	5,328	..	5,07,770	2,388	5,10,167		
2. MAIN CANAL AND BRANCHES											
A.—Preliminary Expenses	50,808	..	50,808	4,580	4,680	..	55,388	..	55,388		
B.—Land	2,68,090	452	2,58,512	22,250	22,250	..	2,80,319	452	2,80,801		
D.—Regulators	2,43,801	103	2,44,050	23,671	23,671	..	2,69,502	103	2,69,727		
E.—Falls and Weirs	3,01,031	467	3,61,478	42,008	42,008	..	4,03,039	467	4,03,606		
F.—River and Hill Torrent Works.	2,710	..	2,710	1,051	1,051	..	3,800	..	3,800		
F.—(1)—Other Cross Drainage Works.	2,23,617	..	2,23,617	11,137	41,137	..	2,51,761	..	2,61,761		
G.—Bridges	8,28,808	..	8,28,808	51,270	51,270	..	8,77,078	..	8,77,078		
H.—Escapes	3,40,113	..	3,40,113	43,119	43,119	..	3,83,862	..	3,83,862		
I.—Navigation Works	12,87,606	..	12,87,606	29,864	29,864	..	14,17,860	..	14,17,860		
J.—Mills	53,115	..	53,115	3,935	3,935	..	58,050	..	58,050		
K.—Buildings	6,60,223	10,600	6,69,052	45,175	45,175	..	7,01,408	10,600	7,15,107		
L.—Earth-work	10,01,367	..	10,01,367	1,08,661	1,08,661	..	20,98,031	..	20,98,031		
M.—Plantations	10,032	..	10,032	4,650	4,650	..	23,682	..	23,682		
O.—Miscellaneous	54,280	..	54,280	3,764	3,764	..	58,047	..	58,047		
P.—Maintenance	1,58,861	..	1,58,861	18,411	18,411	..	1,77,305	..	1,77,305		
TOTAL	65,42,330	11,783	65,51,113	5,33,793	5,33,793	..	70,70,125	11,783	70,87,098		
3. DISTRIBUTARIES—											
A.—Preliminary Expenses	65,053	..	65,053	12,072	12,072	..	78,026	..	78,026		
B.—Land	3,11,091	—70	3,11,018	0,000	6,951	..	3,18,016	—70	3,17,967		
C.—Works	11,87,710	..	11,87,710	1,30,928	1,30,928	..	13,18,617	..	13,18,617		
L.—Earth-work	14,03,257	..	14,03,257	1,63,612	1,63,612	..	15,70,869	..	15,70,869		
O.—Miscellaneous	3,88,880	..	3,88,880	29,350	29,350	..	4,18,230	..	4,18,230		
P.—Maintenance	54,927	..	54,927	12,583	12,583	..	67,500	..	67,500		
TOTAL	34,12,024	—70	34,12,815	3,58,493	3,58,493	..	37,71,327	—70	37,71,248		

ACCOUNTANT-GENERAL

PUNJAB PROVINCE.

FOR THE YEAR 1915-16.

Project.

AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.									Cost of construction as now estimated (Construction Estimate closed on 31st March 1909).	Expenditure against closed Estimates.
	IMPERIAL.			CONTRIBUTION.			TOTAL.				
	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.		
4. DRAINAGE AND PROTECTIVE WORKS—	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A.—Preliminary Expenses.	20,301	..	20,301	1	..	1	20,302	..	20,301		
B.—Land ..	59,225	..	59,225	..	..	..	59,225	..	59,225		
C.—Works ..	2,08,426	..	2,08,426	..	..	..	2,08,426	..	2,08,426		
L.—Earth-work ..	4,27,161	..	4,27,404	3,113	..	3,113	4,30,577	..	4,30,577		
O.—Miscellaneous ..	22,647	..	22,647	..	..	..	22,647	..	22,647		
TOTAL ..	7,38,963	..	7,39,063	3,114	..	3,114	7,41,177	..	7,41,177		
TOTAL I.—WORKS..	1,11,95,764	14,092	1,12,09,856	9,00,610	..	9,00,610	1,20,86,408	14,092	1,21,10,500		
Add expenditure on general works at end of 1901-05.	19,21,123	..	19,21,123	..	..	..	19,21,123	..	19,21,123		
TOTAL ..	1,31,10,901	14,092	1,31,33,985	9,00,610	..	9,00,610	1,40,20,531	14,092	1,40,31,623	1,40,07,806	1,40,05,919
II.—ESTABLISHMENT											
5. DIRECTION (a) ..	6,09,565	653	6,09,565	43,545	..	43,545	6,52,413	653	6,53,006		
6. EXECUTIVE ..	23,09,450	2,561	24,01,031	1,57,582	..	1,57,582	25,56,332	2,561	25,58,913		
8. SPECIAL SURVEY ..	1,31,782	..	1,31,782	6,000	..	6,000	1,37,845	..	1,37,845		
8½. SPECIAL FIELD SURVEY.	85	..	85	..	..	..	85	..	85		
LEAVE AND PENSION ALLOWANCES.	..	..	..	29,049	..	29,049	29,049	..	29,049		
TOTAL ..	31,39,188	3,214	31,42,452	2,36,542	..	2,36,542	33,73,750	3,214	33,78,991		
Add expenditure on general works at end of 1901-05.	1,85,590	..	1,85,590	..	..	..	1,85,590	..	1,85,590		
TOTAL ..	33,24,778	3,214	33,28,012	2,36,542	..	2,36,542	35,61,320	3,214	35,61,581	35,58,403	35,63,559
III.—TOOLS AND PLANT											
9. NAVIGATION PLANT	1,033	..	1,033	298	..	298	2,231	..	2,231		
12. MISCELLANEOUS ..	1,01,801	228	1,02,129	18,429	..	18,429	2,10,330	228	2,10,558		
13. REPAIRS AND CARRIAGE.	23,073	..	23,073	5,041	..	5,041	29,014	..	29,014		
TOTAL ..	2,17,907	228	2,18,016	23,768	..	23,768	2,41,576	228	2,41,803	2,42,066	2,41,770
IV.—SUSPENSE ACCOUNT.											
14. STOCK ..	2,13,188	144	2,13,332	..	..	..	2,13,188	144	2,13,332		
15. STOCK PURCHASES..	—19	—171	—190	..	..	..	—19	—171	—190		
15½. STOCK SALES ..	1,827	—1,827	..	..	..	..	1,827	—1,827	..		
16. MISCELLANEOUS ADVANCES.	1,729	—1,103	626	..	..	..	1,729	—1,103	626		
TOTAL ..	2,16,725	—2,067	2,13,768	..	..	..	2,16,725	—2,067	2,13,768		
GRAND TOTAL ..	1,68,70,201	14,027	1,68,93,828	11,60,950	..	11,60,950	1,80,40,151	14,627	1,80,54,778	1,70,08,454	1,78,71,248
V.—LESS RECEIPTS ON CAPITAL ACCOUNT.	11,481	..	11,481	472	..	472	11,053	..	11,053	11,053	11,053
NET TOTAL ..	1,68,07,720	14,027	1,68,82,317	11,60,478	..	11,60,478	1,80,28,198	14,627	1,80,42,825	1,78,06,501	1,78,69,295
APPORTIONMENT:											
49—IRRIGATION WORKS	1,08,07,720	14,027	1,08,82,317	11,60,478	..	11,60,478	1,80,28,198	14,627	1,80,42,825		

(a). Share of accounts excluded under Imperial from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Western Jumna Canal Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CONTRIBUTION.			TOTAL.		
	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Occupiers' rates..	..	26,47,351	..	..	..	..	..	..	..
Owners' rates on irrigated land.	..	..	..	..	..	..	..	..	..
Sales of water ..	..	19,651	..	..	252	..	..	..	..
Supply of towns..	..	..	..	..	..	..	..	..	..
Receipts from Plantations.	..	21,784	..	..	437	..	..	..	..
Receipts from other Canal produce.	..	634	..	..	14	..	..	..	..
Water-power ..	..	6,253	..	..	327	..	..	..	..
Navigation Receipts.	..	62,284	..	..	..	..	..	..	..
Rent of Buildings	..	6,990	..	..	320	..	..	..	..
Fines ..	..	1,759	..	..	117	..	..	..	..
Miscellaneous and other Receipts.	..	22,814	..	..	232	..	..	..	..
Total ...	9,12,34,018	27,77,663	0,70,11,681	31,298	1,706	33,004	9,12,65,916	27,78,269	9,70,44,585
Share of Land Revenue collected in the Civil Department.	1,85,68,801	2,30,696	1,87,99,500	..	..	..	1,85,68,801	2,30,696	1,87,99,500
Interest on sale-proceeds of waste lands benefited.	1,101	204	1,395	..	..	..	1,101	204	1,395
Total ..	1,85,69,908	2,30,990	1,88,00,895	..	..	..	1,85,69,908	2,30,990	1,88,00,895
TOTAL RECEIPTS	11,28,03,923	30,08,553	11,58,12,476	31,298	1,706	33,004	11,28,35,221	30,10,259	11,58,45,480

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.
Western Jumna Canal Project.
No. 8—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

CHARGES.	IMPERIAL.			CONTRIBUTION.			TOTAL.		
	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.
(I.A.)—EXTENSIONS AND IMPROVEMENTS	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(1)—HEAD WORKS	1,98,634	459	1,99,093	14,740	—437	14,303	2,13,385	10	2,13,401
(2)—MAIN CANAL AND BRANCHES	15,32,550	69,045	15,41,595	2,12,371	(a) 21,000	2,33,371	14,94,881	81,014	15,75,895
(3)—DIST. INSTANT.	6,09,640	75,864	6,85,504	56,513	...	56,513	6,65,153	66,861	7,22,017
(4)—DETRIMENTAL AND PROTECTIVE WORKS	66,718	2,142	68,860	2,107	116	2,223	66,875	2,259	71,083
TOTAL I.A. ..	21,56,542	1,18,409	22,74,951	2,85,627	21,071	3,06,698	21,42,214	1,40,182	22,82,396
(I.B.)—MAINTENANCE AND REPAIRS.									
(1)—HEAD WORKS	19,01,719	70,040	19,71,759	80,754	2,500	83,254	18,82,470	62,519	19,35,022
(2)—MAIN CANAL AND BRANCHES	71,35,319	3,90,062	75,25,381	4,23,389	17,577	4,40,966	75,81,908	3,48,228	79,30,136
(3)—DIST. INSTANT.	30,59,102	1,85,714	32,44,816	1,71,210	...	1,71,210	41,20,321	1,85,714	43,16,035
(4)—DETRIMENTAL WORKS	4,56,571	42,263	5,28,834	17,091	92	18,013	5,04,652	43,105	5,47,757
TOTAL I.B. ...	1,33,51,711	6,08,078	1,39,59,789	6,94,443	20,068	7,14,511	1,40,78,254	6,20,666	1,47,07,940
(I.C.)—COMPENSATION.									
(13)—ESTABLISHMENT.	1,01,755	1,173	1,02,928	2,021	—20	2,001	1,03,806	1,153	1,04,959
(6)—DIRECTION AND ACCOUNT (d)	20,52,380	57,959	21,10,339	82,709	4,573	87,282	21,35,170	62,602	21,97,771
(9)—EXECUTIVE ESTABLISHMENT	75,10,467	2,00,678	77,11,145	3,38,401	10,386	3,48,787	81,57,070	3,12,773	84,69,843
(7)—MEDICAL DO.	60,63,739	2,05,876	62,69,615	1,38,500	1	1,38,501	61,04,275	2,05,832	63,10,107
(7B.)—NAVIGATION ESTABLISHMENT.	17,240	189	17,429	...	...	...	17,240	169	17,409
(7C.)—PLANTATION ESTABLISHMENT.	790	...	790	...	...	...	790	...	790
(7D.)—LABOUR AND PENSION ALLOWANCES.	...	...	...	78,342	2,108	80,450	78,342	2,108	80,450
(7E.)—MILLS AND MACHINERY.	1,123	...	1,123	...	...	...	1,123	...	1,123
TOTAL ...	1,58,56,702	5,66,401	1,64,23,103	6,36,136	17,103	6,53,239	1,61,91,297	5,83,504	1,70,74,801
(1)—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIAL	...	1,067	1,067	...	...	...	...	1,067	1,067
(2)—PLANT AND MACHINERY.	...	3,723	3,723	...	...	...	...	3,723	3,723
(3)—TOOLS.	...	1,705	1,705	...	...	...	...	1,705	1,705
(4)—NAVIGATION PLANTS.	1,051	3,617	4,668	...	...	...	1,051	3,617	4,668
(5)—CAMP EQUIPMENT.	...	46	46	...	...	...	...	46	46
(6)—LIFT STICK.	...	1,765	1,765	...	...	...	...	1,765	1,765
(7)—OFFICE FURNITURE.	2,82,200	1,513	2,83,713	21,786	851	22,637	3,03,986	2,567	3,06,553
(8)—REPAIRS AND CARRIAGE.	2,12,273	15,838	2,28,111	62	...	522	2,12,705	15,838	2,28,543
TOTAL ...	1,00,421	20,273	1,20,694	22,598	851	23,449	1,01,91,297	5,83,504	1,07,74,801
(IV.)—REFUNDS OF REVENUE.	3,64,012	(b) 2,202	3,70,214	...	...	...	3,68,012	2,202	3,70,214
(V.)—PROFIT AND LOSS.	1,295	...	1,295	...	...	...	1,295	...	1,295
General work to end of 1904-05	48,02,523	...	48,02,523	...	...	...	48,02,523	...	48,02,523
TOTAL ...	3,72,58,000	13,26,215	3,85,84,215	16,11,701	9,004	17,02,337	3,88,99,713	13,28,417	4,02,28,130
Indirect Charges debitable to Revenue Account No 1	26,10,771	81,371	27,01,142	...	...	...	26,10,771	81,371	27,01,142
TOTAL CHARGES Balance, Not Revenue.	3,98,77,864	14,07,616	4,12,85,480	16,11,701	60,600	17,02,337	4,15,19,572	14,08,288	4,29,27,860
GRAND TOTAL	11,23,01,923	30,08,553	11,53,10,476	31,298	1,700	33,001	11,28,35,221	30,10,259	11,58,45,480

(a) Includes Rs. 17,108 on account of seigniorage during the year. Up to date Rs. 1,71,821.

(b) " Rs. 5 on account of water rates and Rs. 1,538 on account of owners' rate.

(c) " Rs. 72,676 on account of fees for collection of Revenue.

(d) " share of account; excluded under Imperial from 1912-13.

(e) Rs. 6,10,270 more would have been earned had not owners' rates on certain lands irrigated been remitted in favour of Revenue assignments.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Western Jumna Canal Project.

No 4.—INTEREST ACCOUNT FOR AND TO END OF 1915-16.

	Amount.		Amount.
	Rs.		Rs.
Total Interest charges to end of 1914-15 ..	2,23,16,514	Net Revenue realized to end of 1914-15 ...	7,22,26,055
Do. for the year 1915-16		Do. during 1915-16 ...	16,00,937
Total outlay to end of 31st March 1916 Rs. 1,68,72,317			
Less half outlay during 1915-16 ..Rs. 7,514			
	Rs. 1,68,75,032		
Interest at 3-4725 ..	5,85,086		
Total ..	2,29,02,500		
Balance Revenue after defraying Interest charges..	5,16,24,492		
Total ..	7,45,20,002	Total ..	7,45,26,002

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue ..	2,15,980	575	2,16,551
Leave and Pension Allowances { Imperial ..	5,03,170	457	5,03,627
{ Contribution ..	29,019	...	29,019
Total ..	8,38,205	1,032	8,39,237
DEBIT—			
Leave and Pension Allowances debited to Native States treated as direct charge and transferred to Account No. 2 of the Canal.	29,019	...	29,019
Net debit to Imperial ..	5,09,156	1,032	5,10,188
REVENUE—			
Capitalization of abatement of Land Revenue ..	14,202	2,071	16,273
Leave and Pension Allowances { Imperial ..	26,05,487	79,290	26,84,777
{ Contribution ..	78,342	2,108	80,450
Total ..	26,98,121	81,471	27,79,592
DEBIT—			
Leave and Pension Allowances debited to Native States treated as direct charge and transferred to Account No. 3 of this Canal.	78,342	2,108	80,450
Net debit to Imperial Revenue ..	26,19,779	81,371	27,01,150

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Western Jumra Canal Project.

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CHARGES AGAINST CLOSED SANCTIONS.			CURRENT SANCTIONS.			Total charges to date against old and current sanctions.	REMARKS.
	Expenditure against Construction Estimate.	Expenditure against open and sanctioned.	Total.	Charges to date.	Amount of Sanctioned Estimate.	Unspent Balance of Estimate.		
IMPERIAL.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
DIRECT CHARGES.								(a) Secy's No. 935 W.I. 21-2-11. = 10,800
Works	1,02,90,277	28,75,002	1,31,65,279	—31,206	81,977	63,273	1,31,53,083	" No. 01420 22-8-12 = 5,000
Establishment ..	27,27,222	5,99,704	33,26,926	1,022	4,004	3,879	33,28,042	" No. 2134 W.I. 24-1-13 = 4,000
Tools and Plant ..	1,77,785	40,217	2,18,002	32	323	202	2,18,035	" No. 2204 W.I. 12-5-15 = 3,126
suspense Balances ..	..	..	..	2,13,768	..	—2,13,768	2,18,768	" No. 0102 W.I. 26-5-16 = 2,121
Total ..	1,31,05,286	35,15,013	1,67,10,299	1,57,680	37,206	—1,16,374	1,68,43,828	" No. 0781 W.I. 22-6-15. = 2069
Less Receipts on Capital Account.	11,201	250	11,451	..	..	Nil	11,481	37206
Net Total ..	1,31,84,081	35,14,763	1,66,98,844	1,57,530	37,206	—1,46,324	1,68,52,347	
INDIRECT CHARGES.								
Capitalized abatement of Land Revenue.	1,53,167	83,304	2,16,561	..	..	..	2,16,561	
Leave and Pension Allowances.	5,12,004	81,300	5,93,484	148	..	—143	5,93,027	
Total ..	6,65,261	1,44,784	8,10,045	148	..	—143	8,10,189	
GRAND TOTAL ..	1,38,49,345	36,69,547	1,75,08,892	1,58,678	37,206	—1,46,467	1,76,92,536	
CONTRIBUTION.								
DIRECT CHARGES ..								
Works	8,31,341	60,299	8,91,640	..	..	..	8,91,640	
Establishment ..	2,17,408	10,714	2,30,512	..	..	..	2,36,512	
Tools and Plant ..	23,514	954	23,768	..	..	..	23,768	
Total ..	10,74,653	80,297	11,60,050	..	..	..	11,60,050	
Less Receipts on Capital Account.	472	..	472	..	..	..	472	
Net Total ..	10,74,181	80,297	11,60,178	..	..	..	11,60,178	
GRAND TOTAL ..	10,74,181	80,297	11,60,478	..	..	..	11,60,178	

HEADS OF ACCOUNT.				DIRECT CHARGES.			Cost of construction as now estimated (Construction Estimate closed on 31st March 1890).	Expenditure against Closed Estimate.
				Imperial.				
				Previous.	1 st 18-10.	Total.		
I.—WORKS.				Rs.	Rs.	Rs.		
1. HEAD WORKS—								
C.—Works	..	..	..	7,25,200	01,839	8,17,185		
K.—Buildings	..	..	..	03,031	..	63,031		
TOTAL				7,88,330	01,839	8,80,219		
2. MAIN CANAL AND BRANCHES—								
A.—Preliminary Expenses	..	..	..	8,186	..	8,186		
B.—Land	..	..	..	1,44,578	..	1,44,578		
D.—Regulators	..	..	..	3,52,039	..	3,52,039		
E.—Falls and Weirs	..	..	..	19,49,484	..	19,49,484		
F.—River and Hill Torrent Works	..	..	..	5,39,958	..	5,39,958		
F. (1).—Other Cross Drainage Works	..	..	..	1,18,245	..	1,18,245		
G.—Bridges	..	..	..	6,52,430	..	6,52,430		
H.—Escapes	..	..	..	6,38,733	..	6,38,733		
I.—Navigation Works	..	..	..	4,78,555	..	4,78,555		
J.—Mills	..	..	..	1,47,530	..	1,47,530		
K.—Buildings	..	..	..	10,01,366	67,932	10,72,338		
L.—Earth-work	..	..	..	38,60,463	3,716	38,73,189		
M.—Plantations	..	..	..	95,476	..	95,476		
O.—Miscellaneous	..	..	..	3,52,306	2,34,390	6,80,090		
P.—Maintenance	..	..	..	75,872	..	75,872		
TOTAL				1,06,27,312	3,06,091	1,09,33,403		
3. DISTRIBUTARIES—								
A.—Preliminary Expenses	..	..	..	24,333	..	24,333		
B.—Land	..	..	..	3,70,661	..	3,70,661		
C.—Works	..	..	..	16,28,151	—10	16,28,141		
L.—Earth-work	..	..	..	16,03,384	..	16,03,384		
O.—Miscellaneous	..	..	..	3,28,401	—1,411	3,27,090		
P.—Maintenance	..	..	..	8,354	..	8,354		
Add Dinaagar Navigation Channel	..	..	..	35,770	..	35,770		
Shahpur Water Courses	..	..	..	63,427	..	63,427		
Lahore City Rajbaha	..	..	..	12,721	..	12,721		
TOTAL				41,70,501	—1,421	41,68,580		

ACCOUNTANT-GENERAL.

PUNJAB PROVINCE.

FOR THE YEAR 1915-16.

Doab Canal Project.

FOR AND TO END OF 1915-16.

HEADS OF ACCOUNTS.	DIRECT CHARGES.			Cost of construction as now estimated (Construction Estimate closed on 31st March 1890)	Expenditure against Closed Estimates.
	Imperial.				
	Previous.	1915-16.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.
I.—DRAINAGE AND PROTECTIVE WORKS—					
A.—Preliminary Expenses	539	...	539		
B.—Land	6,519	...	6,519		
C.—Works	28,906	..	28,906		
L.—Earth-work	96,247	..	96,247		
O.—Miscellaneous	1,163	...	1,163		
TOTAL	1,33,374	...	1,33,374		
TOTAL I WORKS	1,57,10,317	3,06,550	1,01,15,876	1,60,98,768	1,57,26,596
II.—ESTABLISHMENT					
5. Direction	8,34,851	13,408	8,48,319		
6. Executive	25,93,635	51,115	26,44,750		
7. Medical	5,465	..	5,465		
TOTAL	34,33,951	64,523	34,98,534	34,66,203	34,24,906
III.—TOOLS AND PLANT.					
4. Navigation Plant	22	...	22		
Mill Plant	258	...	258		
Miscellaneous	9,01,046	9,191	9,12,237		
8. Repairs and Carriage	2,300	..	2,300		
TOTAL	9,06,686	9,191	9,16,877	11,90,675	8,95,225
IV.—SUSPENSE ACCOUNT.					
14. Stock	0,92,856	—1,40,916	5,42,941		
15. Stock Purchases	—1,236	—218	—1,440		
15a. Stock Sale	146	—33	113		
16. Miscellaneous Advances	2,741	3,411	6,152		
17. London Invoices .. ..	..	..	..
18. London Stores,	53,101	16,302	69,403		
TOTAL	7,47,068	—1,30,448	8,17,160		
GRAND TOTAL	2,08,07,602	3,39,885	2,11,47,447	2,07,64,646	2,00,45,727
V.—LESS RECEIPTS ON CAPITAL ACCOUNT.	16,955	..	16,955	16,955	16,955
NET TOTAL	2,07,90,607	3,39,885	2,11,30,492	2,07,47,691	2,00,28,772
APPORTIONMENT.					
48.—Irrigation Works	2,07,90,607	3,39,885	2,11,30,492	..	..

(c). Shows of accounts excluded from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.
//
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16

Upper Bari Doab Canal Project.

No. 3 —REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.	(I.A.)—EXTENSIONS AND IMPROVEMENTS.	Rs.	Rs.	Rs.
Occupiers' rates ..	9,22,27,012	33,26,482	9,60,53,498	(1)—HEAD WORKS ..	3,32,870	12,525	3,45,395
				(2)—MAIN CANAL AND BRANCHES ..	14,25,037	27,754	14,52,811
				(3)—DISTRIBUTARIES ..	11,97,782	56,217	12,53,999
				(4)—DRAINAGE AND PROTECTIVE WORKS.	1,75,275	6,562	1,80,837
Owners' rates on irrigated land.	8,575	..	8,575	TOTAL I. A. ..	31,80,934	1,02,058	32,83,042
Sales of water ...	7,12,672	19,132	7,31,818	(I. B.)—MAINTENANCE AND REPAIRS.			
				(1)—HEAD WORKS ..	46,63,120	63,093	47,26,213
				(2)—MAIN CANAL AND BRANCHES ..	84,04,745	2,00,586	87,85,331
Supply of towns. ...	2,393	105	2,503	(3)—DISTRIBUTARIES ..	42,44,680	1,59,863	44,04,543
				(4)—DRAINAGE WORKS ..	89,227	23,094	1,12,321
Receipts from Plantation ..	10,22,357	24,235	10,46,592	TOTAL I. B. ..	1,74,01,778	5,36,636	1,80,38,414
				(I. C.)—COMPENSATION.	49,006	250	49,322
Receipts from other canal produce.	2,39,937	777	2,40,714	(II)—ESTABLISHMENT.			
				(4)—DIRECTION AND ACCOUNT	22,12,280	52,960	22,65,240
				(6)—EXECUTIVE ESTABLISHMENT	79,41,942	3,00,574	82,42,516
				(7)—MEDICAL Do. ..	1,12,074	5,272	1,17,346
				(7A)—REVENUE Do. ...	65,48,928	2,68,769	68,17,697
Water power ..	41,84,377	1,13,359	42,97,736	(7B)—PLANTATION Do. ..	(b), 40,165	..	40,165
				(7D)—LEAVE AND PENSION ALLOWANCE.	52	..	52
Navigation Receipts ..	5,477	..	5,477	TOTAL ..	1,68,56,011	6,27,474	1,74,83,485
Rent of Buildings ...		8,163		III TOOLS AND PLANTS.			
				1. SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS.	..	105	105
				2. PLANT MACHINERY. ...	8,204	—52	8,142
				3. TOOLS. ...	..	1,763	1,763
				4. NAVIGATION PLANTS. ...	..	30	30
Fines ...	13,32,941	2,931	14,52,039	5. CAMP EQUIPAGE. ...	..	121	121
				6. LIVE STOCK. ...	..	157	157
				7. OFFICE FURNITURE ...	..	2,295	2,295
				8. REPAIRS AND CARRIAGE ...	2,64,692	18,608	2,83,300
				9. MISCELLANEOUS ..	3,69,264	—5,097	3,63,167
Miscellaneous and other Receipts.		1,08,004		TOTAL III TOOLS & PLANTS ..	4,42,160	16,920	4,59,080
Total ..	9,97,35,753	41,03,892	10,38,39,645	(IV). REFUNDS OF REVENUE	1,67,271	1,210	1,68,487
Share of Land Revenue collected in the Civil Department.	1,43,50,853	5,49,983	1,49,00,836	(V).—PROFIT AND LOSS..	1,073	..	1,073
				TOTAL ..	3,83,36,343	12,84,600	3,96,20,943
Interest on sale proceeds of waste lands benefited.	6,84,232	66,310	7,50,542	Indirect Charges debitable to Revenue Account as per Account No. 5.	20,06,960	89,221	27,66,190
TOTAL ..	1,60,35,685	6,16,293	1,66,51,978	TOTAL CHARGES ..	4,10,05,312	13,73,781	4,23,79,093
				Balance, Not Revenue ..	7,37,65,520	32,46,404	7,71,11,930
TOTAL RECEIPTS ..	11,47,70,833	47,20,182	11,94,91,023	GRAND TOTAL ..	11,47,70,833	47,20,182	11,94,91,023

(a). Share of Accounts excluded from 1912-13.

(b). Includes Rs. 1,09,082 on account of fees for collection of revenue.

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Bari Doab Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1915-16.

	Amount.		Amount.
Total interest charges to end of 1914-15 ...	3,38,48,070	Net Revenue realized to end of 1914-15 ...	7,37,65,620
Do. for the year 1915-16 ...		Do. during 1915-16 ...	33,46,404
Total outlay to end of March 1916=Rs. 2,11,30,492			
Less half outlay during 1915-16= " 1,60,942			
Mean Capital at charge " 2,00,60,650			
Interest at 3.4725 per cent. on above ...	7,27,855		
Total ...	3,45,75,931		
Balance Revenue after defraying Interest charges ...	4,25,35,809		
Total ...	7,71,11,740	Total ...	7,71,11,930

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue ...	20,411	225	20,636
Leave and Pension Allowances ...	7,12,327	9,042	7,21,369
Total ...	7,32,738	9,267	7,42,005
REVENUE—			
Capitalization of abatement of Land Revenue ...	18,199	1,376	19,574
Leave and Pension Allowances ...	26,48,770	87,846	27,36,616
Total ...	26,66,969	89,221	27,56,190

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CHARGES AGAINST CLOSED SANCTIONS.			CURRENT SANCTIONS.			Total charges to date against old and current sanctions.	REMARKS.		
	Expenditure against Construction Estimate.	Expenditure against open canal sanctions.	Total.	Charges to date.	Amount of Sanctioned Estimate.	Unspent Balance of Estimate.		Authority	No. and date.	Amount.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			Rs.
DIRECT CHARGES—										
Works ...	1,24,60,791	32,74,805	1,57,35,596	3,90,280	3,73,172	—17,108	1,61,15,876	G. I.	935 I., 10-6-14	1,22,959
Establishment ...	27,91,452	6,33,454	34,24,906	73,628	41,297	—32,331	34,98,534	Soc'y, I. B.	3368 W. I., 19-11-15	3,071
Tools and Plant ...	4,92,216	3,07,010	8,05,225	20,652	3,04,450	2,83,798	9,16,877	G. I.	479 I., 29-4-15	1,33,894
Suspense Balances ...	...	...	...	6,17,160	...	—6,17,160	6,17,160	Soc'y, I. B.	1138 W. I., 9-3-15	10,773
Total ...	1,57,40,458	43,05,269	2,00,45,727	11,01,720	7,18,919	—3,82,801	2,11,47,447	Soc'y, I. B.	731 W. I., 4-2-13	3,696
Less Receipts on Capital Account	16,955	...	16,955	...	...	...	16,955	G. I.	1745 I., 20-11-13	3,99,010
								S. E.	508, 20-1-16	857
								S. E.	7370, 22-11-15	2,658
								S. E.	1835, 22-3-15	230
Net Total ...	1,57,23,503	43,05,269	2,00,28,772	11,01,720	7,18,919	—3,82,801	2,11,30,492	Soc'y, I. B.	2706, 20-10-08	41,752
INDIRECT CHARGES—										
Capitalized abatement of Land Revenue.	8,391	12,256	20,636	...	...	...	20,636			
Leave and Pension Allowances.	6,22,375	88,683	7,11,058	10,311	...	—10,311	7,21,369			
Total ...	6,30,766	1,00,939	7,31,694	10,311	...	—10,311	7,42,005			7,18,919
GRAND TOTAL ...	1,63,54,259	44,06,207	2,07,60,466	11,12,031	7,18,919	—3,93,112	2,18,72,407			

OFFICE OF ACCOUNTANT-GENERAL

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Sirhind Canal Project.

No 2—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.									Cost of construction as now estimated (Construction Estimate closed on 31st March).	Expenditure against closed Estimates.
	IMPERIAL.			CONTRIBUTION.			TOTAL.				
	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.		
I.—WORKS	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
1. HEAD WORKS—											
A.—Preliminary Expenses..	483	..	483	272	..	272	755	..	755		
B.—Land ..	7,063	..	7,063	3,074	..	3,974	11,037	..	11,037		
C.—Works ..	8,46,377	71,334	9,17,711	1,76,088	40,125	2,16,213	13,22,465	1,11,450	14,33,924		
K.—Buildings ...	67,313	1,752	69,065	37,863	986	38,849	1,05,176	2,738	1,07,914		
O.—Miscellaneous ..	73,804	..	73,804	3,532	..	3,532	77,342	..	77,342		
P.—Maintenance ..	24,104	..	24,104	13,559	..	13,559	37,663	..	37,563		
TOTAL ..	10,10,144	73,085	10,83,230	5,35,294	41,111	5,76,405	15,54,438	1,14,197	16,68,536		
2. MAIN CANAL AND BRANCHES—											
A.—Preliminary Expenses..	23,536	..	23,536	19,298	..	19,298	42,834	..	42,934		
B.—Land ..	5,59,880	..	5,59,880	2,54,332	..	2,54,332	8,14,212	..	8,14,212		
D.—Regulators ..	4,18,720	..	4,18,720	2,95,027	..	2,95,027	7,13,747	..	7,13,747		
E.—Falls and Weirs ..	7,74,938	..	7,74,938	3,97,909	..	3,97,909	11,72,847	..	11,72,847		
F.—(1).—Other Cross Drainage Works.	12,32,587	..	12,32,587	10,41,549	..	10,41,549	22,74,136	..	22,74,136		
G.—Bridges ..	7,53,893	21,940	8,05,833	4,70,302	10,587	4,80,889	12,63,255	32,527	12,95,782		
H.—Escapes ..	1,86,686	..	1,86,686	1,03,312	..	1,03,312	2,89,999	..	2,89,999		
I.—Navigation Works	17,47,254	..	17,47,254	3,84,346	..	3,84,346	21,31,600	..	21,31,600		
J.—Mills ..	41,513	..	41,513	..	..	..	41,513	..	41,513		
K.—Buildings ..	9,41,093	3,923	9,45,016	3,08,671	1,674	3,10,345	12,49,704	5,597	12,55,301		
L.—Earth-work ..	18,85,620	—1,996	18,83,624	31,61,614	..	31,61,614	80,47,424	—1,995	80,45,428		
M.—Plantations ..	1,20,312	..	1,20,312	1,04,358	..	1,04,358	2,25,170	..	2,25,170		
N.—Tanks and Reservoirs.	1,940	..	1,940	..	..	..	1,940	..	1,940		
O.—Miscellaneous ..	87,897	..	87,897	77,387	..	77,387	1,55,284	..	1,55,284		
P.—Maintenance ..	2,27,821	..	2,27,821	2,09,075	..	2,09,075	4,36,896	..	4,36,896		
TOTAL ..	120,34,330	23,867	1,20,58,197	81,35,341	12,261	81,47,602	1,88,70,571	36,128	1,89,06,699		
3. DISTRIBUTARIES—											
A.—Preliminary Expenses..	51,908	..	51,908	30,471	..	30,471	91,379	..	91,379		
B.—Land ..	3,87,091	—555	3,86,536	72,601	..	72,601	4,59,592	—555	4,59,037		
C.—Works ..	14,08,001	..	14,08,001	7,95,007	..	7,95,007	22,03,008	..	22,03,008		
L.—Earth-work ..	16,57,946	..	16,57,946	9,77,792	..	9,77,792	26,35,738	..	26,35,738		
O.—Miscellaneous ..	2,55,485	..	2,55,485	17,803	..	17,803	2,73,288	..	2,73,288		
P.—Maintenance ..	..	..	..	..	..	..	..	..	..
TOTAL ..	37,60,431	—555	37,59,876	19,02,674	..	19,02,674	80,63,105	—555	80,62,550		

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Sirhind Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.									Cost of construction as now estimated. (Construction Estimate closed on 31st March.)	Expenditure against closed Estimates.
	IMPERIAL.			CONTRIBUTION.			TOTAL.				
	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.		
DRAINAGE AND PROTECTIVE WORKS.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
A.—Preliminary Expenses.	31	..	31	17	..	17	48	..	48		
B.—Land ..	55,982	..	55,982	44,530	..	44,530	1,00,518	..	1,00,518		
C.—Works ..	3,303	..	3,303	1,858	..	1,858	5,161	..	5,161		
L.—Earth-work ..	5,31,372	..	5,31,372	4,24,032	..	4,24,032	9,55,461	..	9,55,461		
O.—Miscellaneous ..	..	..	..	..	..	..	..	..	..
P.—Maintenance ..	2,622	..	2,622	1,475	..	1,475	4,097	..	4,097		
TOTAL ..	5,91,310	..	5,93,310	4,71,078	..	4,71,078	10,65,288	..	10,65,288		
TOTAL I—WORKS ..	1,74,07,215	90,305	1,75,07,513	97,46,267	63,772	97,50,039	2,71,53,502	1,40,770	2,73,03,272	2,75,07,251	2,71,13,425
II.—ESTABLISHMENT.											
5. DIRECTION ..		—1,327			3,205						
6. EXECUTIVE ..				(a)							
7. MEDICAL ..	46,63,615	2,571	46,55,080	28,24,820	1,401	28,23,419	74,78,605	5,036	74,84,603		
8. SPECIAL SURVEY ..											
51. SPECIAL FIELD SURVEY.	..	..	..	5,30,203	657	5,30,050	5,30,203	657	5,30,050		
LEAVE AND PENSION ALLOWANCES.											
TOTAL ..	46,63,810	1,244	46,55,050	33,64,113	5,351	33,69,464	80,17,955	5,505	80,24,560	60,53,300	80,11,218
III.—TOOLS AND PLANT.											
4. NAVIGATION PLANT											
2. PLANT AND MAINTENANCE ..	21,01,050	..	21,05,210	11,90,791	..	11,90,022	32,05,780	358	32,06,138		
8. MISCELLANEOUS REPAIRS AND CARRIAGE.		227			131						
LOSS BY EXCHANGE ..	2,740	..	2,740	10,568	..	10,568	13,308	..	13,308		
TOTAL ..	21,07,720	227	21,07,947	12,01,350	131	12,01,481	33,00,088	358	33,00,446	83,11,370	33,08,434
IV.—SUSPENSE ACCOUNT.											
STOCK ..	2,00,707	—21,073	1,85,821	..	..	..	2,00,707	—21,073	1,85,821		
14. STOCK PURCHASES ..	—40	—137	—180	..	..	..	—40	—137	—180		
15a STOCK SALES ..	107	—52	55	..	..	..	107	—52	55		
16. MISCELLANEOUS ADVANCES.	981	207	1,178	..	..	..	981	207	1,178		
17. LONDON INVOICES ..	..	..	..	..	..	..	..	..	..
18. LONDON STORES ..	12,034	—12,034	..	..	..	..	12,034	—12,034	..		
TOTAL ..	2,10,570	—33,599	1,85,071	..	..	..	2,10,570	—33,599	1,85,071		
GRAND TOTAL ..	2,43,98,650	63,070	2,44,62,020	1,43,11,767	63,854	1,43,70,613	3,87,00,418	1,22,824	3,88,23,242	3,80,71,921	3,81,33,077
V.—LESS RECEIPTS ON CAPITAL ACCOUNT.	1,07,518	..	1,07,518	68,608	..	68,608	1,70,126	..	1,70,126	1,70,126	1,70,126
NET TOTAL ..	2,42,81,141	63,070	2,43,45,111	1,42,43,151	63,854	1,43,02,005	3,85,24,292	1,22,824	3,86,47,116	3,87,95,795	3,82,56,951
APPORTIONMENT.											
49.—IRRIGATION WORKS	2,42,81,141	63,070	2,43,45,111	1,42,43,151	63,854	1,43,02,005	3,85,24,292	1,22,824	3,86,47,116	3,87,95,795	3,82,56,951
43.—M. W. AND NAVIGATION, IMPERIAL AND PROVINCIAL.											

(a) Share of accounts excluded from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Sirhind Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

Receipts.	INTERNAL.			CONTRIBUTION.			TOTAL.		
	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Ls.	Ps.	Rs.	Rs.
Occupiers' rates	1,00,17,617	58,69,25	58,75,500	2,710	8,270	10,980	0,00,10,270	25,16,500	6,88,37,700
Sales of water	2,02,551	22,41	2,02,570	18,840	...	18,840	2,82,000	22,140	4,05,110
Supply of towns	700	400	1,100	...	...	...	700	400	1,100
Receipts from plantation ..	4,02,020	24,770	4,26,790	1,85,440	12,22	2,00,170	2,01,700	41,000	6,28,000
Receipts from other Canal projects ..	1,23,170	...	1,23,170	1,02,000	...	1,02,000	2,82,000	...	2,82,000
Water power	17,770	1,07,000	1,24,770	1,01,000	47,000	1,48,000	2,26,000	1,75,000	2,73,000
Navigation Receipts ..	20,000	11,000	31,000	97,000	6,000	1,03,000	97,000	17,000	2,14,000
Rent of Boilers	1,77,510	1,700	1,79,210	2,000	1,000	3,000	1,77,500	7,000	1,84,500
Fuel	40,000	...	40,000	...	...	...	40,000	...	40,000
Proceeds from collection of ..	11,000	1,400	12,400	21,000	210	21,210	11,000	1,400	12,400
Total	71,72,550	21,20,000	92,92,550	10,04,000	5,000	1,00,400	71,82,550	22,10,000	93,92,550
Less of Less Revenue	1,00,000	1,00,000	1,00,000	...	...	...	1,00,000	1,00,000	1,00,000
Interest on loan .. ..	...	...	...	...	...	...	...	...	...
Total Receipts	70,72,550	20,20,000	90,92,550	10,04,000	4,000	1,00,400	70,82,550	21,10,000	91,92,550

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Sirhind Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

CHARGES.	IMPERIAL.			CONTRIBUTION.			TOTAL.		
	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(I.A.)—EXTENSIONS AND IMPROVEMENTS.									
(1)—HEAD WORKS ...	1,66,010	35,421	1,02,131	82,103	19,924	1,08,027	2,46,013	55,345	3,00,358
(2)—MAIN CANAL AND BRANCHES.	9,50,910	60,651	10,11,561	10,65,586	1,40,360	12,14,746	26,16,326	2,10,011	28,26,337
(3)—DISTRIBUTARIES ..	6,40,000	38,000	6,81,000	14,262	..	14,262	6,01,162	38,000	6,09,352
(4)—DRAINAGE AND PROTECTIVE WORKS.	41,034	216	41,250	20,377	78	20,452	61,411	321	61,732
TOTAL I. A. ...	17,97,784	1,34,408	19,30,192	17,88,124	1,60,350	19,57,487	36,83,812	8,03,707	38,87,079
(I.B.)—MAINTENANCE AND REPAIRS.									
(1)—HEAD WORKS ...	7,39,001	28,410	7,60,011	4,06,426	15,981	4,22,406	11,37,026	44,391	11,81,417
(2)—MAIN CANAL AND BRANCHES.	38,08,890	1,63,977	39,50,870	22,74,780	80,400	23,01,216	60,80,095	2,40,437	63,21,122
(3)—DISTRIBUTARIES ...	42,18,000	1,61,888	42,42,994	300	..	300	42,18,372	1,64,086	43,83,360
(4)—DRAINAGE WORKS ...	4,30,332	71,936	5,02,320	2,73,212	46,493	3,13,705	7,03,544	1,12,161	8,16,025
TOTAL I. B. ...	91,87,133	4,19,663	96,04,101	29,51,780	1,42,034	30,07,723	1,21,39,527	5,02,297	1,27,01,924
(I.C.) COMPENSATION ...	36,196	10	36,211	13,413	4	13,417	49,638	20	49,658
(II)—ESTABLISHMENT.									
(5)—DIRECTOR AND ACCOUNT	10,72,086	50,709	11,22,881	3,20,410	20,273	3,40,683	13,08,495	71,072	14,09,567
(6)—EXECUTIVE ESTABLISHMENT.	44,01,140	2,04,766	46,08,901	17,09,073	81,889	17,01,802	61,14,119	3,46,644	64,60,763
(7)—MEDICAL Do. ...	1,65,130	(b) 11,407	1,69,625	51,875	2,030	54,810	2,10,005	14,430	2,24,435
(7A.)—REVENUE Do. ...	60,10,773	2,47,227	62,58,000	0,000	900	10,010	60,20,303	2,48,217	62,68,520
(7B.)—NAVIGATION Do. ...	20,610	314	20,924	..	..	..	20,010	314	20,324
(7D.)—LEAVE AND PENSION ALLOWANCE, (14 PER CENT. ON Rs. 77,296.)	..	..	..	2,04,627	14,862	3,00,371	2,04,627	14,862	3,00,371
TOTAL ...	1,06,65,730	6,74,590	1,12,40,340	23,92,405	1,20,030	25,13,344	1,30,58,165	6,95,629	1,37,53,684
(III)—TOOLS AND PLANT.									
(1)—SCIENTIFIC INSTRUMENTS	..	1,717	1,717	..	516	540	..	2,263	2,263
DRAWING MATERIALS.	..	150	150	..	81	84	..	234	234
(2)—PLANT AND MACHINERY ...	..	4,930	4,930	..	1,403	1,407	..	6,035	6,035
(3)—TOOLS ..	..	100	100	..	50	50	..	156	156
(4)—NAVIGATION PLANT ..	4,909	100	4,709	2,351	50	2,407	9,960	156	7,116
(5)—CAMP EQUIPAGE ...	1,325	9,089	10,000	3,738	5,108	8,846	5,203	11,188	19,461
(6)—MISCELLANEOUS ...	3,00,046	1,363	3,10,109	1,02,906	—301	1,02,611	4,11,061	985	4,12,920
(7)—OFFICE FURNITURE ..	..	1,935	1,935	..	986	986	..	2,021	2,021
(8)—REPAIRS AND CARRIAGE ..	1,24,751	10,613	1,35,204	56,062	4,983	60,045	1,80,413	16,496	1,96,906
TOTAL ...	4,30,931	20,488	4,60,419	1,84,066	12,774	1,77,130	6,04,687	42,362	6,40,849
(IV).—REFUNDS OF REVENUE	78,122	741	78,867	2,630	..	2,630	80,862	601	81,463
(V.)—PROFIT AND LOSS ...	372	..	372	85	..	85	457	..	457
(VI.)—SUSPENSE ACCOUNT									
MISCELLANEOUS ADVANCES ...	..	..	..	680	1,647	2,227	680	1,647	2,227
STOCK ..	..	..	..	13,842	640	14,482	13,842	640	14,482
STOCK SALES ..	..	..	..	..	30	30	..	30	30
" PURCHASE ..	..	..	..	..	—48	—48	..	—48	—48
TOTAL SUSPENSE ACCOUNT ..	..	..	..	14,622	2,175	16,697	14,622	2,175	16,697
TOTAL ...	2,22,00,000	11,58,600	2,33,58,600	78,30,507	4,48,212	77,78,809	2,05,31,666	10,06,891	3,11,38,557
Indirect Charges debitable to Revenue Account as per Account No. 5 ..	14,00,074	80,093	15,80,067	..	..	..	14,00,074	80,093	15,80,067
TOTAL CHARGES ...	2,37,00,074	12,38,693	2,49,38,767	78,30,507	4,48,212	77,78,809	3,10,30,031	16,87,844	3,27,17,875
Balance Not Revenue ...	4,68,87,182	10,88,482	4,88,75,664	—60,26,030	—3,67,670	63,93,701	4,08,61,143	16,20,812	4,24,81,955
GRAND TOTAL ...	7,06,87,256	32,28,081	7,39,15,337	13,01,525	80,572	13,85,101	7,18,01,777	33,08,656	7,51,10,433

(a). Includes foreign exchange amounting to Rs. 1,30,344 during the year and up to date Rs.

(b). Includes Rs. 61,032 on account of fees for collection of Revenue.

(c). Share of account under Imperial excluded from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Sirhind Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1915-16.

	Amount.		Amount.
	Rs.		Rs.
Total Interest charges to end of 1914-15 ..	3,22,05,762	Not Revenue realized to end of 1914-15 ...	4,68,87,182
Do. for the year 1915-16 ..		Do. during 1915-16 ...	18,88,482
Total outlay to end of March 1916=	Rs. 2,43,45,111		
Less half outlay during 1915-16 =	31,986		
Mean capital at charge =	2,43,13,126		
Interest at 3.4725%	8,44,273		
TOTAL ..	3,31,40,035		
Balance Revenue after defraying Interest charges	1,57,35,020		
TOTAL ...	4,88,75,054	TOTAL ..	4,88,75,664

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue	3,20,099	...	3,20,099
Leave and Pension Allowances { Imperial	8,91,174	174	8,91,348
{ Contribution	5,39,293	657	5,39,950
Total ...	17,50,566	831	17,51,397
Deduct Leave and Pension allowances debited to Native States treated as direct charges and transferred to Account No. 2 of the canal.	5,39,293	657	5,39,950
Not debitable to Imperial Canal	12,11,273	174	12,11,447
REVENUE—			
Capitalization of abatement of Land Revenue	5,873	550	6,423
Leave and Pension Allowances { Imperial	14,93,201	80,443	15,73,644
{ Contribution	2,94,527	14,852	3,09,379
Total ..	17,93,601	85,845	18,89,446
Deduct Leave and Pension allowances debited to Native States treated as direct charges and transferred to Account No. 3 of the canal.	2,94,527	14,852	3,09,379
Net Imperial Revenue	14,99,074	80,993	15,80,067

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Sirhind Canal Project.

No 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CHARGES AGAINST CLO-ED SANCTIONS.			CURRENT SANCTIONS.			Total charges to date against old and current sanctions.	REMARKS.
	Expendi- ture against Construc- tion Estimate	Expendi- ture against canal sanctions.	Total.	Charges to date.	Amount of Sanctioned Estimate.	Unspent Balance of Estimate		
1	2	3	4	5	6	7	8	9
IMPERIAL.								
DIRECT CHARGES—								
Works ...	1,26,33,573	17,37,800	1,43,71,373	1,32,016	3,44,451	2,12,435	1,75,03,613	G. I. 827 I = (a) 27-5-14 = 89,122
Establishment ...	42,71,551	3,76,764	46,48,315	6,471	29,607	23,136	46,55,089	G. I. 995 I = (a) 27-5-14 = 11,469
Tools and Plant ...	20,42,351	24,298	21,07,149	613	2,680	1,273	21,07,956	G. I. 270 I = (a) 15-4-16 = 34,484
Suspense Balances ...	...	...	...	1,85,971	...	-1,55,971	1,85,971	L. G. 269 W.I. = 15,797
								9-10-15 = (a) 5-1-14 = 1,63,675
								G. I. 501 I = 71,937
								14-3-14 =
								3,76,444
Total ...	1,10,56,381	21,38,953	2,41,95,334	3,26,205	3,76,444	51,140	2,44,52,629	
Less Receipts on Capital Account.	1,07,518	...	1,07,518	...	...	...	1,07,518	
Net Total ...	1,16,80,663	21,38,953	2,40,10,816	3,23,205	3,76,444	51,140	2,43,45,111	(a). 84 per cent. of total estimated amount.
INDIRECT CHARGES—								
Capitalized abatement of Land Revenue.	3,15,270	4,820	3,20,090	...	...	...	3,20,090	
Leave and Pension Allowances.	6,37,691	52,749	6,90,440	901	...	-901	6,90,440	
Total ...	11,52,961	57,569	12,10,530	901	...	-901	12,11,437	
GRAND TOTAL ...	1,20,32,624	21,96,522	2,52,29,146	3,26,205	3,76,444	50,240	2,55,56,758	
CONTRIBUTION.								
DIRECT CHARGES—								
Works ...	92,09,021	3,72,927	95,81,948	57,607	1,19,795	91,558	97,99,659	G. I. 827 I = (a) 27-5-14 = 89,122
Establishment ...	32,56,004	65,306	33,21,310	6,513	12,155	5,642	33,69,461	G. I. 995 I = (a) 27-5-14 = 11,469
Tools and Plant ...	11,95,963	5,511	12,01,474	194	870	676	12,01,400	G. I. 270 I = (a) 15-4-16 = 34,484
Suspense Balances	...	...	...	...	...	...	...	G. I. 14 I = (a) 5-1-14 = 1,63,675
								14-3-14 =
								1,62,400
Total ...	1,36,51,000	4,44,134	1,40,95,134	64,570	1,32,820	97,530	1,43,70,613	
Less Receipts on Capital Amount.	68,608	16	68,624	...	...	...	68,608	(a). 35 per cent. of total estimated amount.
Net Total ...	1,37,43,016	4,44,118	1,41,87,134	64,570	1,32,820	97,530	1,43,02,005	
GRAND TOTAL ...	1,37,43,016	4,44,118	1,41,87,134	64,570	1,32,820	97,530	1,43,02,005	

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Chenab Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated. Construction Estimate closed on 31st March	Expenditure against closed Estimates.
	Imperial.				
	Previous.	1915-16.	Total.		
I.—WORKS.	Rs.	Rs.	Rs.	Rs.	Rs.
1. HEAD WORKS—					
A.—Preliminary Expenses	5,710	..	5,710		
B.—Land	64,105	..	64,105		
C.—Works	50,47,622	..	50,47,622		
K.—Buildings	98,633	4,705	1,01,128		
O.—Miscellaneous	6,084	..	6,084		
P.—Maintenance	1,08,784	..	1,08,784		
Total	53,98,038	4,705	53,92,733		
2. MAIN CANAL AND BRANCHES—					
A.—Preliminary Expenses	1,20,369	..	1,20,369		
B.—Land	2,15,279	..	2,15,279		
D.—Regulators	10,83,792	657	10,84,449		
E.—Falls and Weirs	6,05,480	12,804	6,18,284		
F. (1).—Other Cross Drainage Works	6,87,002	..	6,87,002		
G.—Bridges	10,60,601	16	10,60,607		
H.—Escapes	5,38,583	3,730	5,42,313		
J.—Mills	73,020	..	73,020		
K.—Buildings	16,84,909	10,495	17,04,404		
L.—Earth-work	74,81,487	41,269	75,22,756		
M.—Plantations	1,39,734	..	1,39,734		
O.—Miscellaneous	3,70,358	55,463	4,24,821		
P.—Maintenance	1,05,017	..	1,05,017		
Total	1,41,80,651	1,33,461	1,43,14,112		
3. DISTRIBUTARIES—					
A.—Preliminary Expenses	1,34,335	313	1,34,668		
B.—Land	1,17,868	..	1,17,868		
C.—Works	17,75,489	1,242	17,76,831		
L.—Earth-work	26,60,158	5,760	26,65,918		
O.—Miscellaneous	4,75,624	597	4,76,221		
P.—Maintenance	34,570	..	34,570		
Total	51,98,162	7,921	52,06,083		

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Chenab Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated (Construction Estimate closed on 31st March 1900.)	Expenditure against closed Estimates.
	Imperial.				
	Previous.	1915-16.	Total.		
4. DRAINAGE AND PROTECTIVE WORKS—	Rs.	Rs.	Rs.	Rs.	Rs.
A.—Preliminary Expenses	10,771	..	10,771		
B.—Land	14,563	10,030	24,593		
C.—Works	24,803	13,468	38,271		
L.—Earth-work	1,46,758	29,128	1,75,886		
O.—Miscellaneous	37,176	237	37,413		
P.—Maintenance	1,162	..	1,162		
TOTAL ..	2,44,233	52,872	2,97,105		
TOTAL I.—WORKS ..	2,50,11,034	1,09,012	2,52,11,026	2,55,93,142	2,44,70,715
II.—ESTABLISHMENT					
DIRECTION	(a) 12,1,311	5,714	12,25,525		
6. EXECUTIVE	31,16,704	22,513	34,39,307		
7. MEDICAL	62,175	..	62,175		
8. SPECIAL SURVEY					
8½. SPECIAL FIELD SURVEY					
9. LEAVE AND PENSION ALLOWANCES					
TOTAL ..	40,98,780	28,227	47,27,007	47,07,830	40,05,073
III.—TOOLS AND PLANT.					
9. NAVIGATION PLANT,					
10. MILL PLANT					
11. RAILWAY PLANT AND ROLLING STOCK	15,000	..	15,000		
12. MISCELLANEOUS	5,13,989	1,987	5,15,976		
13. REPAIRS AND CARRIAGE	1,02,328	..	1,02,328		
Loss by EXCHANGE					
TOTAL ..	6,31,317	-1,987	6,33,301	7,18,225	6,38,848
IV.—SUSPENSE ACCOUNT.					
14. STOCK	6,28,554	-1,24,076	5,03,578		
15. STOCK PURCHASES	-18,114	-16,671	-31,785		
15a. STOCK SALES	751	3,091	3,848		
16. MISCELLANEOUS ADVANCES	1,257	2,007	3,264		
17. LONDON INVOICES					
18. LONDON STORES					
TOTAL ..	6,12,151	-1,30,460	4,75,965		
GRAND TOTAL ..	3,00,51,532	92,770	3,10,47,302	3,10,78,606	2,97,16,236
V.—LESS RECEIPTS ON CAPITAL ACCOUNT.	14,403	..	14,403	14,403	14,103
Net TOTAL ..	3,09,40,129	92,770	3,10,32,899	3,10,65,103	2,97,00,933
APPORTIONMENT.					
49.—IRRIGATION WORKS	3,00,25,710	92,770	3,10,18,480		
48.—M. W. AND NAVIGATION, IMPERIAL	14,410	..	14,410		

(a). Excludes share of accounts commencing from 1912-13.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16

Lower Chapab Canal Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	INTERNAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rates ..	11,45,15,592	83,55,425	12,29,04,017	I A.—EXTENSIONS AND IMPROVEMENTS			
Owners' rates on irrigated land.	53,11,411	2,417	55,13,828	1.—HEAD WORKS ..	7,51,202	7,35,274	14,86,476
Sales of water ..	2,37,189	24,216	2,59,405	2.—MAIN CANAL AND BRANCHES.	11,37,975	74,454	12,12,429
Supply of Towns ..	8,201	5,186	13,477	3.—DISTRIBUTARIES ..	12,09,511	1,13,055	13,22,566
Receipts from plantations	1,47,547	22,232	1,69,779	4.—DRAINAGE AND PROTECTIVE WORKS.	67,517	57,725	1,25,272
Receipts from other Canal produce.	80,577	461	81,038	TOTAL I.A. ..	31,59,235	9,80,508	41,39,743
Water power ..	2,52,568	15,059	2,68,617	II B.—MAINTENANCE AND REPAIRS.			
Rent of Buildings ..	1,97,169	11,740	2,08,709	1.—HEAD WORKS ..	16,90,383	1,16,964	17,97,347
Fines ..	30,667	1,217	31,914	2.—MAIN CANAL AND BRANCHES.	75,41,143	5,02,575	80,43,718
Miscellaneous and other Receipts.	4,12,557	7,724	4,19,761	3.—DISTRIBUTARIES ..	41,35,316	2,60,441	43,95,757
Total	12,17,22,925	84,16,507	13,01,70,545	4.—DRAINAGE WORKS ..	50,503	15,867	66,470
Share of Land Revenue collected in the Civil Department.	3,21,43,041	55,65,560	3,90,32,431	TOTAL I.D. ..	1,37,07,347	9,95,947	1,47,03,294
Interest on sale proceeds of waste lands benefited	51,17,561	6,91,930	60,78,651	III C.—COMPENSATION.	1,05,429	551	1,05,980
Total	3,75,56,602	74,73,180	4,50,41,682	(I).—ESTABLISHMENT.			
TOTAL RECEIPTS ..	15,92,58,640	1,57,25,957	17,52,11,627	1.—DIRECTION AND ACCOUNTS	11,39,256	78,341	12,17,597
				2.—EXECUTIVE ESTABLISHMENT.	62,05,933	4,65,670	66,72,652
				(II). MEDICAL ESTABLISHMENT.	3,38,231	23,436	3,56,667
				IV A.—REVENUE ESTABLISHMENT.	75,75,176	5,19,250	80,94,426
				TOTAL ..	1,52,54,646	10,86,697	1,63,41,343
				III.—TOOLS & PLANT			
				1. SCIENTIFIC INSTRUMENTS & DRAWING MATERIALS	...	1,962	1,962
				2. PLANT & MACHINERY.	...	2,339	2,339
				3. TOOLS.	...	5,755	5,755
				4. NAVIGATION PLANT.	...	511	511
				5. CAMP EQUIPAGE	...	1,952	1,952
				6. LIFT STAGE	...	114	114
				7. OFFICE FURNITURE	...	2,025	2,025
				8. MISCELLANEOUS	4,62,411	3,720	4,66,131
				9. REPAIRS & CARRIAGE	1,91,703	37,709	2,29,412
				10. MILL PLANT	5,809	...	5,809
				11. RAILWAY PLANT & ROLLING STOCK.	54,979	...	54,979
				TOTAL ..	7,14,003	56,152	7,70,155
				IV.—REFUNDS OF REVENUE.	1,17,007	747	1,17,754
				TOTAL ..	3,39,64,672	31,20,602	3,61,85,274
				Indirect charges debit-able to Revenue Account as per Account No. 6.	21,38,574	1,52,135	22,91,012
				TOTAL CHARGES ..	3,52,03,646	32,72,740	3,84,76,386
				Balance, Net Revenue ..	12,40,85,091	1,26,50,247	13,67,35,338
				GRAND TOTAL ..	15,92,58,640	1,59,22,957	17,52,11,627

(a). Excludes share of accounts commencing from 1912-13.

(b). Includes Rs. 2,47,923 on account of Landholders' fees for collection of Revenue.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTS-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16

Lower Chenab Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1916-5

	Amount.		Amount.
Total Interest charges to end of 1914 15 ..	Rs. 2,16,08,044	Net Revenue realised to end of 1914-15.	Rs. 12,40,85,004
Do. for the year 1915-16.		Do. during 1915-16 ..	1,20,50,247
Total outlay to end of 31st March 1910 = 3,10,32,890			
Less half outlay during 1915-16 = 46,385			
Mean Capital at charge .. = 3,09,30,511			
Interest at per cent. ..	10,79,007		
Total ..	2,26,74,951		
Balance Revenue after defraying Interest charges ..	11,40,00,690		
Total ..	14,67,35,341	Total ..	13,67,85,841

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-10.	Total.
CAPITAL—	Rs.	Rs.	Rs.
Capitalisation of abatement of Land Revenue	1,02,210	...	1,02,210
Leave and Pension Allowances	6,57,710	3,952	6,61,662
Total ..	7,59,920	3,952	7,63,872
REVENUE—			
Capitalisation of abatement of Land Revenue	3,225	..	3,225
Leave and Pension Allowance,	21,35,640	1,52,136	22,87,776
Total ..	21,39,864	1,52,136	22,91,000

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CHARGES AGAINST CROSSED SANCTIONS.			CURRENT SANCTIONS.			Total charges to date against old and current sanctions.	REMARKS.
	Expenditure against Construction Estimate.	Expenditure against open canal sanctions.	Total.	Charges to date.	Amount of sanctioned Estimate.	Unspent Balance of Estimate.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
DIRECT CHARGES—								
Works	1,99,23,202	45,47,513	2,44,70,715	7,40,311	11,22,727	3,92,410	2,52,11,020	G. I. 471 I. 15-15 = 4,03,153
Establishment ..	26,49,060	9,05,607	40,05,673	1,21,331	1,82,166	40,832	47,27,097	Do. 530 I. 8-15 = 1,76,752
Tools and Plant ..	5,92,825	40,923	6,38,818	—5,514	70,377	81,021	6,33,301	Do. 1079 I. 23-16 = 96,013
Suspense Balances .. ..	...	...	...	4,75,905	...	—4,75,905	4,75,905	Do. 521 I. 16-15 = 1,72,701
Total ..	2,41,59,093	55,59,143	2,97,16,236	13,32,066	13,64,270	32,204	3,10,17,302	Do. 609 I. 6-15 = 2,25,333
Less Receipts on Capital Account.	14,403	...	14,403	...	...	..	14,403	Do. 1204 I. 21-25-11 = 1,18,607
Net Total ..	2,41,41,690	55,59,143	2,97,00,833	13,32,066	13,61,270	32,294	3,10,32,890	Do. 55 I. 16-15 = 90,191
INDIRECT CHARGES—								
Capitalized abatement of Land Revenue.	92,050	9,810	1,01,860	350	...	—350	1,02,210	L.G. 018 W.I. 20-15 = 13,572
Leave and Pension Allowances.	5,00,490	1,35,185	6,44,675	16,987	...	—16,987	6,61,002	L.G. 01278 W.I. 16-15 = 11,103
TOTAL ..	6,01,540	1,44,995	7,40,544	17,337	..	—17,337	7,63,881	L.G. 1098 W.I. 7-15 = 2,348
								G. I. 1110 I. 10-11-15 = 10,000
GRAND TOTAL ..	2,47,43,230	57,04,138	3,04,47,377	13,40,103	13,64,270	14,807	3,17,96,780	Total .. 13,64,270

Assistant Accountant-General.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Sutlej Inundation Canal Project.

No. (2).—CAPITAL ACCOUNT FOR AND TO END OF 1915-16

HEADS OF ACCOUNT.			DIRECT CHARGES.			Cost of Construction as now estimated (Construction Estimate closed on 31st March.)	Expenditure against closed Estimate.
			Imperial.				
			Previous.	1915-16.	Total.		
			Rs.	Rs.	Rs.	Rs.	Rs.
I.—WORKS.							
2. MAIN CANAL AND BRANCHES—							
A.—Preliminary Expenses			3,849	...	3,849	...	...
B.—Land			43,848	...	43,848	...	...
D.—Regulators			30,512	...	30,512	...	...
E.—Falls and Weirs			69,015	...	69,015	...	...
G.—Bridges			62,492	...	62,492	...	...
K.—Buildings			2,11,987	...	2,20,402	...	...
L.—Earth-work			5,52,555	9,215	5,52,365	...	...
O.—Miscellaneous			5,112	...	5,112	...	...
P.—Maintenance			2,457	...	2,457	...	...
TOTAL			9,70,927	9,215	9,80,142	...	...
3. DISTRIBUTARIES—							
A.—Preliminary Expenses			3,842	...	3,842	...	...
B.—Land			45,782	...	45,782	...	...
C.—Work			82,930	...	82,930	...	...
L.—Earth work			2,35,365	...	2,35,365	...	...
O.—Miscellaneous			22,911	...	22,911	...	...
P.—Maintenance			4,652	...	4,652	...	...
TOTAL			3,95,512	..	3,95,512	...	...
TOTAL I.—WORKS			13,66,439	9,215	13,75,654	13,70,377	13,56,615
II.—ESTABLISHMENT.							
5. DIRECTION			51,547	341	51,888	...	...
6. EXECUTIVE			2,75,083	1,289	2,77,272	...	...
7. MEDICAL			2,953	...	2,953	...	...
TOTAL			2,93,483	1,630	2,95,113	2,95,894	2,92,005
III.—TOOLS AND PLANT.							
8. MISCELLANEOUS			21,452	114	21,566	...	...
{ REPAIRS AND CARRIAGE			114	...	114	...	...
TOTAL			21,566	114	21,680	21,707	21,436
IV.—SUSPENSE ACCOUNT.							
14. STOCK			21,028	354	21,382	...	...
15. STOCK-SALES			1	...	1	...	...
16. MISCELLANEOUS ADVANCES			69	11	80	...	...
TOTAL			21,098	365	22,003	...	...
GRAND TOTAL			17,08,186	11,324	17,17,510	16,98,978	16,73,056
V.—LESS RECEIPTS ON CAPITAL ACCOUNT			156	..	156	156	156
NET TOTAL			17,08,030	11,324	17,17,354	16,98,822	16,72,900
APPORTIONMENT.							
49. IRRIGATION WORKS			9,76,123	11,324	9,27,447	...	...
43. M. W. AND NAVIGATION, PROVINCIAL			7,89,907	...	7,89,907	...	...

(a) Share of accounts excluded from 1912-13

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Sutlej Inundation Canal Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rate ..	70,18,210	4,60,002	81,15,112	I. A.—EXTENSIONS AND IMPROVEMENTS.			
				2. MAIN CANAL AND BRANCHES	4,06,245	14,308	4,20,553
Owners' rates on irrigated Land.	17,732	..	17,732	3.—DISTRIBUTARIES ..	1,08,004	5,138	1,74,132
				4.—DRAINAGE AND PROTECTIVE WORKS.	1,158	..	1,158
Sales of water ..	3,030	9	3,039	TOTAL I. A. ..	5,76,397	19,746	5,96,143
				I. B. MAINTENANCE AND REPAIRS.			
Receipts from Plantations	1,20,322	4,320	1,24,716	1.—HEAD WORKS ..	10,370	..	10,370
				2.—MAIN CANAL AND BRANCHES.	45,92,030	1,75,801	47,68,533
Receipts from other Canal produce.	71,050	501	75,250	3.—DISTRIBUTARIES ..	8,44,720	31,503	8,76,220
				TOTAL I. B. ..	54,47,501	2,10,307	56,58,201
Rent of Buildings ..	4,512	1,117	5,629	1C.—COMPENSATION	8,605	..	8,605
				II.—ESTABLISHMENT.			
Fines ..	2,21,050	126	2,25,086	5.—DIRECTION AND ACCOUNT.	(a) 6,32,115	12,026	6,95,311
				6.—EXECUTIVE ESTABLISHMENT.	21,21,227	74,533	22,08,762
Miscellaneous and other Receipts.	17,163	5,072	23,435	7.—MEDICAL Do. ..	37,418	1,621	39,039
				7 A.—REVENUE Do. ..	12,56,515	(b) 65,851	13,22,466
Contribution	22,535	..	22,535	TOTAL ..	41,10,575	1,55,033	42,65,608
				III.—TOOLS AND PLANT			
Total	81,33,752	4,70,140	86,12,022	1.—SCIENTIFIC INSTRUMENT	..	222	222
				3.—TOOLS ..	..	818	818
Share of Land Revenue collected in the Civil Department.	72,33,217	2,61,380	74,94,606	4.—NAVIGATION PLANT ..	910	..	910
				5.—CAMP EQUIPAGE ..	..	40	40
Interest on sale-proceeds of waste lands benefited.	78,361	5,608	84,032	MISCELLANEOUS ..	40,414	—108	40,216
				7.—OFFICE FURNITURE ..	..	691	691
				8.—REPAIRS AND CARRIAGE	21,521	1,222	22,746
				TOTAL ..	71,354	2,828	74,682
				IV.—REFUNDS OF REVENUE.	25,500	94	25,594
				V.—PROFIT AND LOSS	370	..	370
				TOTAL ..	1,02,41,201	2,88,008	1,06,20,302
				Indirect Charges debitable to Revenue Account as per Account No. 6.	6,14,500	1,701	6,66,300
Total ..	73,11,591	2,67,057	75,78,635	TOTAL CHARGES ..	1,08,55,800	1,00,902	1,12,05,602
TOTAL RECEIPTS ..	1,57,45,363	7,16,197	1,64,61,560	Balance, Not Revenue ..	4,50,563	3,30,395	51,05,958
				GRAND TOTAL ..	1,57,15,363	7,16,197	1,64,61,560

(a). Share of accounts excluded from 1912-13.

(b). Includes Rs. 12,722 on account of fees for collection of Revenue.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Sutlej Irrigation Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1915-16.

	Amount.		Amount.
	Rs.		Rs.
Total interest charges to end of 1914-15 ..	21,07,093	Net Revenue realized to end of 1914-15 ..	48,54,563
Do. for the year 1915-16 ..		Do. during 1915-16 ..	3,36,395
Total outlay to 31st March 1916 Rs. 17,17,354			
Less half outlay during 1915-16 " 5,462			
Mean capital at charge " 17,11,692			
Interest at 3.4725 per cent ..	59,438		
Total Interest charges ..	21,66,535		
Balance Revenue after defraying Interest charges	30,29,427		
Total ..	51,95,965	Total ..	51,95,965

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue ..	57,928	50	58,033
Leave and Pension Allowances ..	42,700	228	42,924
Total ..	1,00,748	276	1,01,027
REVENUE—			
Capitalization abatement of Land Revenue ..	10,648		10,648
Leave and Pension Allowances ..	6,33,948	21,704	6,55,652
Total ..	6,44,596	21,704	6,66,300

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CHARGES AGAINST CLOSED SANCTIONS.			CURRENT SANCTIONS.			Total charges to date against old and current sanctions.	REMARKS.		
	Expenditure against Construction Estimate.	Expenditure against open canal sanctions.	Total.	Charges to date.	Amount of Sanctioned Estimate.	Unspent Balance of Estimate.		Authority.	No. & Date.	Amount.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.			Rs.
DIRECT CHARGES—										
Works ..	10,07,701	3,48,854	13,56,555	19,059	10,762	723	13,76,654	Secretary to Government, Punjab, P. W. D., Irrigation Branch.	W. I. 0905, dated 8-8-14	3,140
Establishment ..	2,24,759	67,240	2,92,000	3,108	3,889	781	2,95,113			
Tools and Plant ..	20,008	4,368	24,376	241	271	27	24,680		W. I. 0206, dated 8-6-15	2,858
Suspense Balances ..	..	..	..	22,003		-22,003	22,003			
Total ..	12,52,588	4,20,468	16,73,056	44,454	23,922	-20,532	17,17,510			
Less Receipts on Capital Account.	150	..	150	..	..	..	150		W. I. 0501, dated 7-7-15	2,858
Net Total ..	12,52,432	4,20,468	16,72,900	44,454	23,922	-20,532	17,17,354			
INDIRECT CHARGES—										
Capitalized abatement of Land Revenue.	53,631	4,352	58,033	..	..	..	58,033		W. I. 01020, dated 4-8-14	15,067
Leave and Pension Allowances.	33,146	9,411	42,557	435	..	-435	42,994			
Total ..	86,820	13,763	1,00,583	435	..	-435	1,01,027			23,922
GRAND TOTAL ..	13,39,261	4,34,231	17,73,492	44,889	23,922	-20,967	18,18,381			23,922

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR 1915-16.

Sidhni Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEAD OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated (Construction Estimate closed on 31st March 1915).	Expenditure against closed Estimates.
	Imperial.				
	Previous.	1915-16.	Total.		
I.—WORKS,	Rs.	Rs.	Rs.	Rs.	Rs.
1. HEAD WORKS—					
A.—Preliminary Expenses	754	...	754		
B.—Land	235	...	235		
C.—Works	2,46,260	..	2,46,260		
E.—Buildings	11,646	..	11,646		
O.—Miscellaneous	301	..	301		
TOTAL ..	2,59,290		2,59,290		
2. MAIN CANALS AND BRANCHES—					
A.—Preliminary Expenses	4,014	...	4,014		
B.—Land	22,422	...	22,422		
D.—Regulators	49,568	..	49,568		
G.—Bridges	41,980	...	41,980		
K.—Buildings	60,780	...	60,780		
L.—Earth-work	2,58,096	...	2,58,096		
M.—Plantations	821	...	821		
O.—Miscellaneous	427	...	427		
P.—Maintenance	5,391	...	5,391		
TOTAL ..	4,67,411	..	4,67,411		
3. DISTRIBUTARIES—					
A.—Preliminary Expenses	3,905	...	3,905		
B.—Land	11,387	...	11,387		
G.—Works	66,622	..	66,622		
L.—Earth-work	1,36,784	...	1,36,784		
O.—Miscellaneous	165	...	165		
TOTAL ..	2,18,923	...	2,18,923		

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR 1915-16.

Sidhnai Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEAD OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated (Construction Estimate closed on 31st March 1915).	Expenditure against closed Estimates.
	Imperial.				
	Previous.	1915-16.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.
6. DRAINAGE AND PROTECTIVE WORKS—					
A.—Preliminary Expenses	36	...	36		
TOTAL	36	...	36		
TOTAL I.—WORKS	9,45,656	...	9,45,656	9,45,656	9,45,656
II.—ESTABLISHMENT.					
5. DIRECTION	40,445 (a)	...	40,445 (a)		
6. EXECUTIVE	2,14,741	...	2,14,741		
7. MEDICAL .. .. .		...	
TOTAL	2,64,186	...	2,64,186	2,64,186	2,64,186
III.—TOOLS AND PLANT					
12.—MISCELLANEOUS	38,039	..	38,039		
13.—REPAIRS AND CARRIAGE .. .. .		...	
TOTAL	38,039	...	38,039	38,039	38,039
IV.—SUSPENSE ACCOUNT.					
14. STOCK PURCHASES	—28	—74	—102		
15a. STOCK SALES	50	—15	35		
16. MISCELLANEOUS ADVANCES	92	94	186		
17. STOCK	43,039	—971	42,068		
TOTAL	44,053	—966	42,087		
GRAND TOTAL	12,91,934	—966	12,90,968	12,47,881	12,47,881
V.—LESS RECEIPTS ON CAPITAL ACCOUNT	221	...	221	221	221
NET TOTAL	12,91,710	—966	12,90,744	12,47,657	12,47,657
APPORTIONMENT.					
49.—IRRIGATION WORKS	12,73,401	—966	12,72,435		
43.—M. W. AND NAVIGATION, IMPERIAL	18,308	...	18,308		
PROVINCIAL					

(a). Excluding share of accounts commencing from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Sindhni Canal Project.

No. 8.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rates ...	81,13,919	6,10,686	90,30,605	I.A.—EXTENSIONS AND IMPROVEMENTS.			
				1.—HEAD WORKS ...	27,091	2,308	29,400
				2.—MAIN CANAL AND BRANCHES.	1,68,060	4,442	1,72,502
				3.—DISTRIBUTARIES ..	72,003	3,708	75,711
Sales of water ...	38,853	3,778	42,631	4.—DRAINAGE AND PROTECTIVE WORKS.	508	...	508
				TOTAL I. A. ..	2,67,665	10,518	2,78,181
Receipts from Plantations	5,340	380	5,720	I.B.—MAINTENANCE AND REPAIRS.			
				1.—HEAD WORKS ...	3,23,801	7,507	3,31,308
				2.—MAIN CANAL AND BRANCHES.	8,74,789	22,400	8,98,288
Receipts from other Canal produce.	8,500	277	8,780	3.—DISTRIBUTARIES ...	5,06,453	12,056	5,18,511
				TOTAL I. B. ...	17,05,026	43,062	17,48,087
Rent of Buildings ..	18,481	231	18,733	I.C.—COMPENSATION	231	..	231
				II.—ESTABLISHMENT.			
Fines ..	6,700	621	7,321	5.—DIRECTION AND ACCOUNT.	1,40,204	(a) 5,183	1,45,477
				6.—EXECUTIVE ESTABLISHMENT.	7,40,110	97,479	7,86,580
				7.—MEDICAL ESTABLISHMENT.	15,328	1,479	17,107
Miscellaneous and other Receipts.	11,886	1,808	13,693	7 A.—REVENUE ESTABLISHMENT.	5,65,733	(b) 36,001	6,00,737
				TOTAL ...	11,71,055	70,145	15,50,210
				III.—TOOLS AND PLANT			
				1.—SCIENTIFIC AND DRAWING MATERIAL.	..	298	298
				2.—PLANT AND MACHINERY.	..	218	218
Total ..	85,03,606	6,23,000	91,27,196	3.—TOOLS ...	..	..	..
				4.—NAVIGATION PLANT ...	..	401	401
				5.—CAMP EQUIPAGE ...	..	..	..
Share of Land Revenue collected in the Civil Department.	14,59,931	1,88,724	16,18,175	6.—LIVE STOCK ..	..	..	..
				7.—OFFICE FURNITURE ..	..	280	280
				8.—REPAIRS AND CARriage	28,863	1,299	30,162
				12.—MISCELLANEOUS ...	21,636	208	21,844
				TOTAL ...	50,409	2,764	53,263
Interest on sale-proceeds of waste lands benefited.	3,00,060	20,803	3,21,701	IV.—REFUNDS OF REVENUE.	1,240	360	1,596
				TOTAL ...	31,95,731	1,35,837	36,31,568
				Indirect Charges debitable to Revenue Account as per Account No. 5.	2,06,209	11,105	2,17,314
Total ...	17,80,010	2,00,329	10,40,230	TOTAL CHARGES ...	37,01,940	1,46,942	38,48,882
				Balance Net Revenue ...	65,32,660	6,80,187	72,18,833
TOTAL RECEIPTS ...	1,02,34,076	8,33,129	1,10,07,735	GRAND TOTAL ...	1,02,34,000	8,33,129	1,10,07,735

(a). Share of Accounts excluded from 1912-13.

(b). Includes Rs. 5,800 on account of fees for collection of Revenue.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Sidhnai Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1915-16.

	Amount		Amount.
	Rs.		Rs.
Total Interest charges to end of 1914-15 ..	12,40,405	Not Revenue realized to end of 1914-15 ..	65,32,666
Do. for the year 1915-10 ..	...	Do. during 1915-16 ..	6,86,187
Total outlay up to 31st March 1916 =Rs. 12,00,744			
Less half outlay during 1915-10 = " —183			
Mean Capital at charge = " 12,01,227			
Interest at 3.4726 per cent. ...	44,838		
Total ...	12,85,333		
Balance Revenue after defraying Interest charges ...	60,33,620		
Total ...	72,18,853	Total ...	72,18,853

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

PARTICULARS.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue	3,328	...	3,328
Leave and Pension Allowances	36,889	...	36,889
Total ...	40,217	...	40,217
REVENUE—			
Capitalization abatement of Land Revenue	260	25	285
Leave and Pension Allowances... .. .	2,05,040	11,080	2,17,020
Total ...	2,05,200	11,105	2,17,314
GRAND TOTAL ..	2,45,426	11,105	2,57,531

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CHARGES AGAINST CLOSED SANCTION.			CURRENT SANCTIONS.			Total charges to date against old and current sanctions.	REMARKS.
	Expenditure against Construction. Estimate.	Expenditure against open current sanctions.	Total.	Charges to date.	Amount of sanctioned Balance of Estimate.	Unspent Balance of Estimate.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
DIRECT CHARGES—								
Works	7,01,201	2,44,452	9,45,656	...	...	...	9,45,656	
Establishment	2,04,803	69,853	2,64,180	...	...	...	2,64,180	
Tools and Plant	22,653	15,796	38,039	...	...	...	38,039	
Suspense Balance ... ..	...	...	...	43,087	...	—43,087	43,087	
TOTAL	9,28,260	3,19,621	12,47,881	43,087	...	—43,087	12,90,968	
Less Receipts on Capital Account.	224	...	224	...	...	...	224	
NET TOTAL	9,28,036	3,19,621	12,47,657	43,087	...	—43,087	12,90,741	
INDIRECT CHARGES—								
Capitalized abatement of Land Revenue—	2,394	...	3,328	...	...	...	3,328	
Leave and Pension Allowances.	28,576	8,315	36,889	...	...	...	36,889	
TOTAL	31,570	8,617	40,217	...	...	...	40,217	
GRAND TOTAL ..	9,59,606	3,28,238	12,87,844	43,087	...	—43,087	13,30,901	

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Jhelum Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated.	Expenditure against closed Estimates.
	Imperial.				
	Previous.	1915-16.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.
I.—WORK.					
I.—HEAD WORKS—					
A.—Preliminary Expenses	12,610	..	12,610		
B.—Land	31,772	..	31,772		
C.—Works	20,70,571	..	20,70,571		
E.—Buildings	1,28,078	..	1,28,078		
O.—Miscellaneous	19,273	..	19,273		
P.—Maintenance	28,020	..	28,020		
TOTAL ..	21,01,233	..	31,91,233		
2.—MAIN CANAL AND BRANCHES—					
A.—Preliminary Expenses	3,230	..	98,230		
B.—Land	2,49,781	..	2,49,781		
D.—Regulators	2,71,286	..	2,71,286		
E.—Falls and Weirs	2,31,047	..	2,34,047		
F.(1).—Other Cross Drainage Works ..	1,20,258	..	1,20,258		
G.—Bridges	6,01,284	..	6,01,281		
H.—Escapes	4,78,540	..	4,78,540		
J.—Mills	1,07,620	..	1,07,620		
K.—Buildings	10,13,162	17,386	10,30,547		
L.—Earth-work	22,03,007	..	22,03,007		
M.—Plantations	86,179	..	86,179		
O.—Miscellaneous	45,133	191	45,324		
P.—Maintenance	32,373	..	32,373		
TOTAL ..	57,17,100	17,576	57,34,676		
3.—DISTRIBUTARIES—					
A.—Preliminary Expenses	61,108	—7	61,101		
B.—Land	1,46,709	..	1,46,709		
C.—Works	15,26,200	258	15,26,458		
L.—Earth-work	13,37,875	..	13,37,875		
O.—Miscellaneous	5,50,500	—89	5,50,411		
P.—Maintenance	4,063	..	4,063		
TOTAL ..	30,36,355	162	30,36,517		

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Jhelum Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEAD OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated.	Expenditure against closed Estimates.
	Imperial.				
	Previous.	1915-16	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.
I.—DRAINAGE AND PROTECTIVE WORKS—					
A.—Preliminary Expenses	21,356		21,356		
B.—Laod	13,638		13,638		
C.—Works	2,884		2,884		
L.—Earth-work	52,353		52,353		
O.—Miscellaneous	1,779		1,759		
TOTAL	91,900	...	91,990		
TOTAL I—WORKS.	1,25,36,678	17,738	1,26,54,416	1,48,95,807	
II.—ESTABLISHMENT.					
5.—DIRECTION	6,00,764	750	6,01,514		
6.—EXECUTIVE	15,10,533	2,833	15,13,366		
7.—MEDICAL	29,633	...	29,633		
8.—SPECIAL SURVEY	42,062	...	42,062		
TOTAL	21,82,992	3,583	21,86,575	29,30,260	
III.—TOOLS AND PLANT.					
9.—NAVIGATION PLANT	50	...	50		
12.—MISCELLANEOUS	2,99,791	250	3,00,041		
13.—REPAIRS AND CARRIAGE	62,566	...	62,566		
TOTAL	3,62,407	250	3,62,657	4,20,715	
IV.—SUPPLY ACCOUNT.					
14.—STOCK	4,19,191	—6,638	4,12,553		
15.—STOCK PURCHASES	—2,533	315	—2,218		
15a.—STOCK SALES	99	—04	5		
16.—MISCELLANEOUS ADVANCES	3,984	—869	3,115		
18.—LONDON STORES	612	—612	...		
TOTAL	4,21,353	—7,898	4,13,455	2,00,000	
GRAND TOTAL.	1,56,03,430	13,673	1,56,17,103	1,84,56,782	
V.—LESS RECEIPTS ON CAPITAL ACCOUNT	40,462	...	40,462	60,000	
NET TOTAL	1,55,62,968	13,673	1,55,76,641	1,83,96,782	
APPORTIONMENT.					
49.—IRRIGATION WORKS	1,55,62,968	13,673	1,55,76,641		

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Jhelum Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rates ..	2,07,30,121	25,80,543	2,33,10,664	I. A.—EXTENSIONS AND IMPROVEMENTS.			
Salon of water ..	81,897	14,012	95,909	1.—HEAD WORKS ..	4,43,651	6,370	4,49,021
Supply of towns ..	2,476	578	4,054	2.—MAIN CANAL AND BRANCHES.	1,67,030	7,161	1,74,091
Receipts from Plantations	20,735	7,851	28,586	3.—DISTRIBUTARIES ..	2,22,119	9,560	2,31,679
Receipts from other Canal produce.	8,057	102	8,159	4.—DRAINAGE AND PROTECTIVE WORKS.	3,858	129	3,987
Water power ..	1,26,237	30,267	1,56,504	TOTAL I. A. ..	8,37,558	22,220	8,59,778
Rent of Buildings ..	81,448	5,563	87,011	I. B.—MAINTENANCE AND REPAIRS.			
Fines ..	10,053	771	10,824	1.—HEAD WORKS ..	8,08,578	17,933	8,26,511
Miscellaneous and other Receipts.	93,352	9,550	1,02,902	2.—MAIN CANAL AND BRANCHES.	17,54,003	1,21,418	18,75,421
Total ..	2,11,66,273	26,60,220	2,38,26,493	3.—DISTRIBUTARIES ..	15,06,440	1,03,003	16,09,443
				4.—DRAINAGE AND PROTECTIVE WORKS.	62,477	3,357	65,834
				TOTAL I. B. ..	40,22,197	2,46,658	42,68,855
				I. C.—COMPENSATION II.—ESTABLISHMENT.	5,218	629	5,847
				5.—DIRECTION AND ACCOUNT.	4,01,048	9,738	4,10,786
				6.—EXECUTIVE ESTABLISHMENT.	17,11,121	2,03,211	19,14,332
				7.—MEDICAL DO. ..	1,07,136	(a) 10,528	1,17,664
				7A.—REVENUE DO. ..	10,78,663	1,98,781	12,77,444
				TOTAL ..	41,97,009	4,62,258	46,59,267
				1.—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS.	...	1,139	1,139
				2.—PLANT AND MACHINERY	...	135	135
				3.—TOOLS ..	...	2,191	2,191
				5.—CAMP EQUIPAGES ..	...	45	45
				6.—LIVE STOCK ..	...	70	70
				7.—OFFICE FURNITURE ..	...	1,634	1,634
				MISCELLANEOUS	...	7,256	7,256
				REPAIRS AND CARRIAGE ..	80,131	8,003	88,134
				TOTAL ..	1,19,051	21,303	1,40,354
				IV.—REFUNDS OF REVENUE	0,033	780	9,813
				V.—PROFIT AND LOSS			
				TOTAL ..	91,91,025	7,53,848	99,44,873
				Indirect Charges debitable to Revenue Account as per Account No. 5.	5,88,516	61,791	6,50,307
				TOTAL CHARGES ..	97,79,541	8,18,630	1,05,98,170
				Balance, Net Revenue ..	1,84,23,400	38,03,924	2,22,27,324
TOTAL RECEIPTS ..	2,82,03,031	41,22,563	3,23,25,594	GRAND TOTAL ..	2,82,03,031	41,22,563	3,23,25,594

(a). Includes Rs. 74,023 on account of fees for collection of Revenue.

(b). Excludes share of account commencing from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.
ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Jhelum Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1915-16.

	Amount.		Amount.
	Rs.		Rs.
Total Interest charges to end of 1914-15 ...	73,10,132	Net Revenue realised to end of 1914-15 ...	1,84,23,430
Do. for the year 1915-16 ..		Do. during 1915-16 ..	33,03,924
	Rs.		
Total outlay to end of 31st March 1916. 1,55,76,641			
Deduct half outlay during 1915-16 6,836			
Mean Capital at charge ... 1,55,69,805	5,40,661		
Interest at 3-4725 per cent			
Total ...	78,50,793		
Balance Revenue after defraying Interest charges	1,38,76,631		
Total ...	2,17,27,414	Total ...	2,17,27,414

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

PARTICULARS.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue ...	82,875	125	83,000
Leave and Pension Allowances ...	3,05,619	502	3,06,121
Total ...	3,88,494	627	3,89,121
REVENUE—			
Capitalization of abatement of Land Revenue ...	800	75	875
Leave and Pension Allowances ..	5,87,716	64,716	6,52,432
Total ...	5,88,516	64,791	6,53,307
GRAND TOTAL ..	9,77,010	65,418	10,42,428

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CHARGES AGAINST CLOSED SANCTIONS.			CURRENT SANCTIONS.			Total charges to date against old and current sanctions	REMARKS.
	Expenditure against Construction Estimates.	Expenditure against open canal sanctions.	Total.	Charges to date.	Amount of sanctioned Estimate.	Unspent Balance of Estimate.		
				Rs.	Rs.	Rs.	Rs.	
DIRECT CHARGES—								
Works ..				1,20,64,416	1,48,95,807	22,11,391	1,20,54,416	
Establishment ..				21,86,575	29,30,240	7,43,665	21,86,575	
Tools and Plant ..				3,62,657	4,29,715	67,058	3,62,657	
Suspense Balances ...				4,13,455	2,00,000	2,13,455	4,13,455	
Total ...				1,50,17,103	1,84,55,782	28,38,679	1,50,17,103	
LESS RECEIPTS ON CAPITAL ACCOUNT.				40,462	60,000	538	40,462	
Net Total ...				1,55,76,641	1,83,95,782	28,19,141	1,55,76,641	
INDIRECT CHARGES—								
Capitalized abatement of Land Revenue.				83,000	1,57,863	7,863	83,000	
Leave and Pension Allowances				3,06,121	4,10,343	1,04,222	3,06,121	
Total ...				3,89,121	5,68,206	1,79,085	3,89,121	
GRAND TOTAL ..				1,59,65,762	1,89,63,988	29,98,226	1,59,65,762	

(a) Includes Rs. 2,05,933 actual direct expenditure on Shahpur Imperial Canal.

(b) Includes Rs. 998 on account of indirect expenditure on Shahpur Imperial Canal.

Both the above will be transferred to the debit of this project on completion of the Shahpur Branch of the Lower Jhelum Canal, vide Secretary, P. W. D. Irrigation Branch, Punjab's No. 085-A. I., dated 14th June 1905.

(c) Revised Project estimate sanctioned in Secretary of State's despatch No. 5, dated 10th February 1905.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Indus Inundation Canals Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated (Construction Estimate closed on 31st March 1894).	Expenditure against closed Estimates.
	Imperial.				
	Previous.	1815-16.	Total.		
I.—WORKS.					
2. MAIN CANAL AND BRANCHES—					
A.—Preliminary Expenses	9,321	..	9,321		
B.—Land	43,187	..	43,187		
D.—Regulatory	73,502	3,403	77,205		
F.—Falls and Weir	32,626	1,270	31,956		
G.—River and Hill Torrent Works	402	..	402		
H.—Bridges	41,031	2,800	43,971		
I.—Escapes	14,031	..	14,031		
K.—Buildings	1,40,534	8,513	1,49,097		
L.—Earth-work	12,50,190	65,492	13,62,682		
M.—Miscellaneous	22,323	2,357	24,679		
TOTAL	16,43,507	1,14,910	17,58,420		
3. DISTRIBUTARIES—					
A.—Preliminary Expenses	3,087	..	3,087		
B.—Land	36,426	1,781	38,267		
C.—Works	59,811	5,702	64,603		
L.—Earth work	1,81,526	8,700	1,90,316		
M.—Miscellaneous	8,530	..	8,530		
TOTAL	2,80,380	10,813	3,05,500		

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Indus Inundation Canals Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated (Construction Estimate closed on 31st March 1894.)	Expenditure against closed Estimates.
	Imperial.				
	Previous.	1915-16.	Total.		
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4. DRAINAGE AND PROTECTIVE WORKS—					
K.—Buildings	1,613		1,613		
L.—Earth-work	3,43,078		3,43,078		
TOTAL	3,44,691	..	3,44,691
TOTAL I.—WORKS	22,77,481	1,31,232	24,08,713	24,51,833	7,59,127
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II.—ESTABLISHMENT.					
5. DIRECTION AND ACCOUNT	1,96,304	(a) 5,362	1,11,726		
6. EXECUTIVE	3,23,835	20,260	3,16,031		
7. MEDICAL	577	..	567		
TOTAL	4,22,706	25,618	4,68,384	4,72,473	1,13,116
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III.—TOOLS AND PLANT.					
12. MISCELLANEOUS	23,216	1,787	25,033		
13. REPAIRS AND CARRIAGE					
TOTAL	23,216	1,787	25,033	31,084	2,387
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IV.—SUSPENSE ACCOUNT.					
14. STOCK	74,287	—9,592	64,695		
16. MISCELLANEOUS ADVANCES	1,806	—1,658	148		
18. LONDON STORES .. .. .	..	..	..
TOTAL	76,093	—11,250	64,843		
GRAND TOTAL	24,01,669	1,47,387	25,56,976	25,55,422	9,01,629
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V. LESS RECEIPTS ON CAPITAL ACCOUNT.					
	63,616	..	63,616	63,616	63,616
NET TOTAL	27,45,973	1,47,387	28,93,360	25,91,806	8,41,013
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APPORTIONMENT.					
42.—IRRIGATION WORKS	20,23,100	1,47,387	21,70,487		
43.—M. W. AND NAVIGATION, IMPERIAL	7,22,513	..	7,22,513		

(a) Share of account excluded from 1912-13.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Indus Inundation Canals Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rates ..	20,64,673	1,35,091	22,00,364	(I.A.)—EXTENSIONS AND IMPROVEMENTS			
Owners' rates on irrigated land.	92,189	..	92,189	2—MAIN CANAL AND BRANCHES ..	6,52,390	69,000	10,22,450
Salos of water ..	5,653	98	5,756	3—DISTRIBUTARIES ..	69,127	2,466	69,593
Supply of town ..	1,118	..	1,118	4—DRAINAGE AND PROTECTIVE WORKS.	8,39,217	13,600	8,92,866
Receipts from Plantation	1,23,475	2,657	1,26,332	TOTAL I. A. ...	18,67,734	1,17,195	19,34,929
Govt. share of Dhundi Produce.	10,01,000	46,178	10,50,787	I.B.—MAINTENANCE AND REPAIRS.			
Receipts from other Canal Produce.	4,216	20	4,336	2—MAIN CANAL AND BRANCHES.	63,78,490	1,27,722	65,16,231
Rent of Buildings ..	..	..	..	3—DISTRIBUTARIES ..	2,83,410	12,048	2,96,367
Fines ..	62,170	2,252	64,422	4—DRAINAGE WORKS ..	9,39,919	45,003	10,31,822
Miscellaneous and other receipts.	..	..	..	TOTAL I. B. ..	76,51,737	1,05,703	78,47,440
Total ..	33,58,533	1,67,116	35,45,671	II.—ESTABLISHMENT			
Contribution of Silt Cleared.	4,18,931	..	4,18,931	5—DIRECTION AND ACCOUNT.	(a) 6,02,050	12,924	6,14,963
Clearance Rate ..	12,70,605	..	12,70,605	6—EXECUTIVE ESTABLISHMENT.	23,75,792	66,888	24,42,680
Total ..	50,57,977	1,87,116	52,44,193	7—MEDICAL ESTABLISHMENT.	28,783	1,939	30,722
Share of Land Revenue collected in the Department.	1,02,37,030	2,50,225	1,04,87,155	7A.—REVENUE ESTABLISHMENT.	6,33,045	(b) 28,956	6,62,511
Interest on sale-proceeds of waste lands benefited	38	2	40	7C.—PLANTATION ESTABLISHMENT.	5,946	..	5,946
Total ..	1,02,37,068	2,50,227	1,04,87,195	TOTAL ..	38,16,225	1,10,817	39,50,512
TOTAL RECEIPTS ..	1,52,95,045	4,37,343	1,57,32,388	1—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS ..	..	61	61
				2—PLANT AND MACHINERY.	..	210	219
				3—TOOLS ..	313	..	313
				4—IRRIGATION PLANT ..	..	211	211
				5—CAMP EQUIPAGE ..	..	204	204
				6—LIVE STOCK ..	..	..	..
				7—OFFICE FURNITURE ..	..	..	..
				8—REPAIRS AND CARRIAGE.	32,689	1,070	33,169
				MISCELLANEOUS ..	58,350	185	58,535
				TOTAL ..	70,801	1,370	72,171
				IV.—REFUNDS OF REVENUE.	4,703	108	4,871
				V.—PROFIT AND LOSS.	1,799	..	1,799
				TOTAL ..	1,31,48,542	4,25,491	1,35,74,023
				Indirect Charges debitable to Revenue Account as per Account No. 5.	6,42,281	16,261	6,58,542
				TOTAL CHARGES ..	1,40,90,613	4,41,752	1,45,32,365
				Balance, Not Revenue ..	12,01,232	—4,400	11,92,832
				GRAND TOTAL ..	1,52,95,015	4,37,343	1,57,32,358

(c) Share of account excluded from 1912-13.

(b) Includes Rs. 6,401 on account of fees for collection of Revenue.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Indus Inundation Canals Project.

No. 4—INTEREST ACCOUNT FOR AND TO END OF 1915-10.

	Amount.		Amount.
	Rs.		Rs.
Total Interest charges to end of 1914-15	18,42,770	Net Revenue realized to end of 1914-15..	12,37,232
		Do. during 1915-16..	—4,409
Total outlay to 31st March 1916=Rs. 28,93,360 ..		Balance net Interest charges	7,40,566
Less half outlay during 1915-10= „ 73,533 ..			
Mean capital at charge = „ 28,12,567 ..			
Interest at 3-4723 per cent.	87,913		
Total	18,40,459	Total	19,18,080

No. 5—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue	8,257	50	8,307
Leave and Pension Allowances	88,052	8,767	71,639
TOTAL	76,309	8,817	70,916
REVENUE—			
Capitalization of abatement of Land Revenue	22,032	775	23,405
Leave and Pension Allowances	1,10,648	45,486	1,75,134
TOTAL	1,32,680	46,261	1,78,512
GRAND TOTAL	7,15,300	19,808	7,38,488

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CHARGES AGAINST CLOSED SANCTIONS.			CURRENT SANCTIONS.			Total charges to date against old and current sanctions.	REMARKS.	
	Expenditure against Construction Estimate.	Expenditure against open canal sanctions.	Total.	Charges to date.	Amount of Sanctioned Estimate.	Unspent Balance of Estimate.			
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Authority.	Amount.
DIRECT CHARGES—									
Works	6,62,618	1,25,470	7,88,127	16,19,583	18,52,736	23,137	24,08,716	No. Date.	Rs.
Establishment	57,231	21,911	1,13,115	7,43,253	3,73,369	14,031	4,53,394		
Tools and Plant	870	1,717	2,587	22,516	23,697	6,051	25,033		
Suspense Balance .. ..	..	..	..	64,368	..	—64,843	64,513		
TOTAL	7,51,522	1,53,107	9,04,629	20,52,347	20,50,793	—1,554	29,53,970		
Less Receipts on Capital Account.	63,616	..	63,616	..	..	..	63,616		
NET TOTAL	6,87,906	1,53,107	8,41,013	20,52,347	20,50,793	—1,554	29,90,354		
INDIRECT CHARGES—									
Capitalized abatement of Land Revenue.	57	8,250	8,307	..	..	..	8,307	Govt. of India.	
Leave and Pension Allowances.	10,672	3,623	23,330	45,330	..	—48,339	71,639	W. I.	
TOTAL	19,729	11,878	31,607	45,330	..	—48,339	79,946	Govt. of Punjab.	
GRAND TOTAL	7,07,635	1,64,985	8,72,620	21,06,686	20,50,793	—49,893	29,70,300		

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Chenab Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated.
	Imperial.			
	Previous.	1915-16.	Total.	
	Rs.	Rs.	Rs.	
1.—WORKS.				
1.—HEAD WORKS—				
A.—Preliminary Expenses	8,520	55	8,575	
B.—Land	87,622	373	87,995	
C.—Works	67,11,315	—5,705	67,05,610	
K.—Buildings	1,88,207	1,350	1,89,557	
O.—Miscellaneous	18,533	65	18,598	
P.—Maintenance	1,35,313	..	1,35,313	
Q.—Losses on Stock ... ..	..	5,715	5,715	
TOTAL	71,40,240	702	71,50,942	
2. MAIN CANAL AND BRANCHES—				
A.—Preliminary Expenses	76,266	24	76,290	
B.—Land	9,63,413	4,758	9,68,171	
D.—Regulators	6,50,055	38,858	6,88,913	
E.—Falls and Weirs	9,52,350	—2,320	9,50,030	
F.—(1)—Other Cross Drainage Works ..	22,61,058	8,304	22,69,362	
G.—Bridges	16,70,818	618	16,71,436	
K.—Buildings	8,12,208	21,161	8,33,369	
L.—Earth work	60,11,023	1,352	60,12,375	
M.—Plantations	37,927	1,305	39,232	
N.—Miscellaneous	61,056	1,441	62,497	
P.—Maintenance	3,19,251	532	3,19,783	
Q.—Losses on Stock	5,919	1,592	7,511	
TOTAL	1,46,55,191	76,173	1,47,31,364	
3.—DISTRIBUTARIES—				
A.—Preliminary Expenses	1,30,012	6,566	1,36,578	
B.—Land	4,10,350	1,31,579	5,41,929	
C.—Works	10,14,173	2,07,336	12,21,509	
L.—Earth work	15,04,582	2,16,734	17,21,316	
O.—Miscellaneous	1,42,492	74,293	2,16,785	
P.—Maintenance	14,308	..	14,308	
TOTAL	32,16,317	7,29,508	39,45,825	

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Chenab Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated	
	Imperial.				
	Previous.	1915-16.	Total.		
4. DRAINAGE AND PROTECTIVE WORKS—					
A.—Preliminary Expenses	5,084	190	6,174		
B.—Land	93,569	8,247	1,02,116		
G.—Works	33,930	3,501	37,481		
L.—Earth-work	7,51,648	1,71,442	9,23,090		
C—Miscellaneous	17,036	26	17,062		
TOTAL	9,02,517	1,83,406	10,85,923		
TOTAL I.—WORKS	2,50,53,216	9,98,881	2,60,12,097	3,00,40,491	
II.—ESTABLISHMENT.					
5. DIRECTION	10,10,403	47,586	10,57,989		
6. EXECUTIVE	27,03,023	2,02,461	29,05,384		
7. MEDICAL	1,14,040	12,438	1,26,478		
8. SPECIAL SURVEY	82,573	...	82,573		
8½. SPECIAL FIELD SURVEY	110	...	110		
LEAVE AND PENSION ALLOWANCES .. ..	...	...	...
TOTAL	39,71,940	2,62,485	42,33,524	42,67,174	
III.—TOOLS AND PLANT.					
1. SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS. .. ..	...	272	272		
2. PLANT AND MACHINERY .. ..	...	8,635	8,635		
3. TOOLS .. ..	...	1,323	1,323		
4. NAVIGATION PLANT .. ..	...	606	606		
5. CAMP EQUIPAGE .. ..	...	28	28		
6. LIVE STOCK .. ..	...	100	100		
7. OFFICE FURNITURE .. ..	...	975	975		
12. MISCELLANEOUS	7,02,000	— 6,535	6,95,165		
8. REPAIRS AND CARRIAGE	1,10,054	11,830	1,21,920		
11. RAILWAY PLANT AND ROLLING STOCK	8,65,370	..	8,65,370		
TOTAL	16,67,424	17,270	16,84,694	20,00,018	
IV.—SUSPENSE ACCOUNT.					
14. STOCK	8,81,802	— 74,548	8,07,154		
15. STOCK PURCHASES	— 3,036	1,639	— 1,397		
15a. STOCK SALES	213	1,082	1,295		
16. MISCELLANEOUS ADVANCES	6,148	— 2,003	4,145		
18. LONDON STORES .. ..	...	...	...
TOTAL	8,85,427	— 73,930	8,11,497	3,00,000	
GRAND TOTAL	3,21,77,116	11,84,706	3,36,71,822	3,66,74,583	
V.—LESS RECEIPTS ON CAPITAL ACCOUNT	47,071	248	47,319	5,43,000	
Net Total	3,21,30,045	11,84,458	3,36,24,503	3,61,31,583	
APPORTIONMENT.					
49—IRRIGATION WORKS	3,23,22,174	11,84,458	3,35,16,632		
43—M. W. AND NAVIGATION	1,07,871	...	1,07,871		

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Chenab Canal Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rates	12,77,921	9,27,055	22,04,976	(I.A.)—EXTENSIONS AND IMPROVEMENTS:			
Sales of water	420	259	679	(1)—HEAD WORKS	7,211	6,623	16,834
Water supply of towns		1,914	1,514	(2)—MAIN CANAL & BRANCHES	1,52,188	98,383	2,50,571
Receipts from Plantations	1,082	268	1,350	TOTAL I. A.	1,59,399	1,08,006	2,67,405
Receipts from other Canal produce	480	31	511	(I.B.)—MAINTENANCE AND REPAIRS:			
Rent of Buildings	12,658	5,027	17,685	(1)—HEAD WORKS	1,13,951	37,162	1,80,833
Fines	1,132	1,236	2,368	(2)—MAIN CANAL & BRANCHES	3,37,716	1,69,361	5,07,080
Miscellaneous and other Receipts	20,792	21,178	41,970	(3)—DISTRIBUTARIES	1,85,354	1,44,428	3,29,782
Total	13,14,897	9,55,571	22,70,468	(4)—DRAINAGE WORKS	31,940	41,139	72,988
Interest on sale-proceeds of waste lands benefited	32,240	36,637	68,877	TOTAL I. B.	6,99,570	3,92,123	10,90,693
Share of land revenue	1,75,416	24,410	1,99,826	(I.C.)—COMPENSATION.		37,730	37,730
Collected in the Civil Department	2,07,065	61,077	2,68,142	(II)—ESTABLISHMENT.			
TOTAL RECEIPTS	15,22,062	10,17,948	25,40,010	(5)—DIRECTION AND ACCOUNT	26,040	(a) 27,831	53,830
				(6)—EXECUTIVE ESTABLISHMENT	1,80,966	80,972	2,11,338
				(7A)—REVENUE DO.	2,37,067	(a) 1,11,110	3,78,377
				TOTAL	3,94,979	2,50,165	6,45,145
				(III)—TOOLS AND PLANT			
				(1)—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS		42	42
				(2)—PLANT AND MACHINERY		3,573	3,573
				(12)—MISCELLANEOUS	4,726	7,146	11,970
				(13)—REPAIRS AND CARRIAGE	6,811		6,811
				TOTAL	11,530	10,760	22,296
				(IV)—REFUNDS OF REVENUE.			
				TOTAL	1,460	615	2,075
					12,65,953	7,90,400	20,65,353
				Indirect Charges debitab to Revenue Account as per Account No. 5	56,297	35,023	90,320
				TOTAL CHARGES	13,21,250	8,34,423	21,55,673
				Balance, Not Revenue	2,00,812	1,83,525	3,84,337
				GRAND TOTAL	15,22,062	10,17,948	25,40,010

(a). Includes Rs. 29,293 on account of fees for collection of Revenue.

(b). Excluding Accounts from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Chenab Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1915-16.

	Amount.		Amount.
Total Interest charges to end of 1914-15	Rs. 60,41,786	Net Revenue realized to end of 1914-15	Rs. 2,06,912
Do. for the year 1915-16		Do. during 1915-16	1,53,325
Total outlay to end of 31-3-16 = Rs. 3,36,24,503		Balance net Interest charges	89,04,331
Less $\frac{1}{2}$ outlay during 1915-16 = " 5,97,220			
Mean Capital at charge = " 3,30,27,274	11,41,872		
Interest at 3.4725 per cent.			
Total ..	71,58,608	Total ..	71,58,608

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

PARTICULARS.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of obatement of Land Revenue ..	2,78,000	12,825	2,91,725
Leave and Pension Allowances ..	5,48,617	36,745	5,85,365
Total ..	8,27,517	49,573	8,77,090
REVENUE—			
Leave and Pension Allowances ..	55,207	35,023	90,320
Total ..	55,207	35,023	90,320

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CURRENT SANCTIONS.			Total charges to date against old and current sanctions.	REMARKS.
	Charges to date.	Amount of Sanctioned Estimate.	Unspent Balance of Estimate		
	Rs.	Rs.	Rs.	Rs.	
DIRECT CHARGES—					
Works ..	2,60,42,007	3,00,40,401	30,93,304	2,60,42,007	
Establishment ..	42,33,534	42,37,174	33,616	42,33,734	
Tools and Plant ..	16,84,604	20,56,018	3,82,224	16,84,604	
Suspense Balances ..	8,11,437	3,00,000	—5,11,437	8,11,437	
Total ..	3,36,71,822	3,66,74,593	30,02,761	3,36,71,822	
Less Receipts on Capital Account ..	47,319	5,43,000	4,95,681	47,319	
Net Total ..	3,36,24,503	3,61,31,593	25,07,080	3,36,24,503	
INDIRECT CHARGES—					
Capitalized abatement of Land Revenue ..	2,91,725	5,16,668	2,24,944	2,91,725	
Leave and Pension Allowances ..	5,85,365	7,08,773	1,23,405	5,85,365	
Total ..	8,77,090	12,25,441	3,48,351	8,77,090	
GRAND TOTAL ..	3,45,01,593	3,73,57,034	28,55,431	3,45,01,593	

Lower Bari Doab Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.				Direct Charges.			Cost of construction as now estimated.	
				Imperial.				
				Previous.	1915-16.	Total.		
I.—WORKS.				Rs.	Rs.	Rs.	Rs.	Rs.
1. HEAD WORKS—								
A.—Preliminary Expenses				13,157	400	13,557		
B.—Land				2,21,135	1,035	2,22,170		
C.—Works				44,52,354	1,23,574	45,75,928		
K.—Buildings				1,33,438	142	1,33,580		
O.—Miscellaneous				21,000	92	21,092		
P.—Maintenance				58,700	...	58,700		
TOTAL				49,20,784	1,25,233	50,46,017		
2. MAIN CANAL AND BRANCHES—								
A.—Preliminary Expenses				1,10,300	208	1,10,508		
B.—Land				50,700	—0,524	47,062		
D.—Regulators				1,27,702	...	1,27,702		
E.—Falls and Weirs				1,15,853	...	1,15,853		
F.—River and Hill Torrent Works				671	...	671		
F. (1).—Other Cross Drainage Works				4,52,047	1,598	4,53,645		
G.—Bridges				4,50,338	13,412	4,63,750		
H.—Escapes				51,347	11,003	62,350		
K.—Buildings				0,73,530	57,815	1,31,345		
L.—Earthwork				33,35,122	...	33,35,122		
M.—Plantations				92,345	23,330	1,15,675		
O.—Miscellaneous				70,760	3,100	73,860		
P.—Maintenance				2,15,251	10,467	2,25,718		
Q.—Losses on Stock				377	28	405		
TOTAL				63,67,534	1,17,163	64,84,697		
3. DISTRIBUTORIES—								
A.—Preliminary Expenses				58,230	8,075	66,305		
B.—Land				1,48,701	—15,025	1,31,676		
C.—Works				10,52,356	1,13,454	11,65,810		
L.—Earthwork				12,72,723	92,301	13,65,024		
O.—Miscellaneous				9,23,764	2,32,576	11,56,340		
P.—Maintenance				24,564	7,515	32,079		
TOTAL				35,40,534	4,37,010	39,77,544		
4. DRAINAGE AND PROTECTIVE WORKS.								
A.—Preliminary Expenses				4,474	1,251	5,725		
B.—Land .. ..				...	401	401		
C.—Works ... ..				...	750	750		
L.—Earthwork				2,022	0,510	2,532		
O.—Miscellaneous				8,180	880	9,060		
TOTAL				14,676	2,792	17,468		
TOTAL I.—WORKS				1,49,33,600	6,80,610	1,56,14,210	1,63,86,208	

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Bari Doab Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.				DIRECT CHARGES.			Cost of construction as now estimated.	
				Imperial.				
				Previous.	1915-16.	Total.		
				Rs.	Rs.	Rs.	Rs.	
II—ESTABLISHMENT.								
5.	DIRECTION AND ACCOUNTS (a) ..			4,88,017	42,517	5,30,534		
6.	EXECUTIVE			18,87,827	2,11,326	20,99,153		
7.	MEDICAL			80,392	12,184	92,576		
8.	SPECIAL SURVEY			7,810	..	7,810		
TOTAL ..				24,61,076	2,66,027	27,27,103	35,49,734	
III—TOOLS AND PLANT.								
1.	SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS.				671	671		
2.	PLANTS AND MACHINERY				9,734	9,734		
3.	TOOLS				427	427		
4.	NAVIGATION PLANT				4,181	4,181		
5.	CAMP EQUIPAGE				680	680		
6.	LIVE STOCK ... ..			..	..	..
7.	OFFICE FURNITURE				2,153	2,153		
8.	REPAIRS AND CARRIAGE			89,920	13,998	1,03,918		
9.	MISCELLANEOUS			6,40,276	—32,711	6,07,565		
10.	RAILWAY PLANT AND ROLLING STOCK ..			7,83,454	..	7,83,454		
TOTAL ..				15,13,656	—608	15,12,948	17,15,905	
IV.—SUSPENSE ACCOUNT.								
14.	STOCK			10,07,110	—11,360	9,95,750		
15.	STOCK PURCHASES			—1,360	—1,179	—2,539		
15 (a).	STOCK SALES			327	380	707		
16.	MISCELLANEOUS ADVANCES			3,307	—1,792	1,515		
17.	LONDON INVOICES			—1	..	—1		
18.	LONDON STORES ... ..			..	..	..
TOTAL ..				10,09,714	—12,751	9,96,963	3,00,000	
GRAND TOTAL ..				1,08,21,105	9,07,701	2,07,28,806	2,10,51,940	
V.—LESS RECEIPTS ON CAPITAL ACCOUNT				46,271	15,685	61,956	2,82,000	
NET TOTAL ..				1,07,74,834	8,92,016	2,06,66,850	2,10,69,940	
APPORTIONMENT.								
49—	IRRIGATION WORKS			1,00,07,710	8,92,133	2,01,99,843		
43.—	M. W. AND NAVIGATION, IMPERIAL			1,67,621	..	1,67,621		

(a). Excluded share of account from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Bari Doab Canal Project.

No. 2.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous	1915-16.	Total.		Previous	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rates ..	5,16,171	4,26,979	9,43,150	(I.A.)—EXTENSIONS AND IMPROVEMENTS.			
				1.—HEAD WORKS ..	...	2,137	2,137
				2.—MAIN CANALS AND BRANCHES ..	...	2,717	2,717
				3.—DISTRIBUTARIES ..	...	7,338	7,338
				4.—DRAINAGE AND PROTECTIVE WORKS.	...	...	...
Sales of water ..	618	1,365	1,983	TOTAL I.A.	...	12,192	12,192
				(I.B.)—MAINTENANCE AND REPAIRS.			
				1.—HEAD WORKS ..	38,021	81,696	89,717
				2.—MAIN CANAL AND BRANCHES	90,210	1,72,070	2,71,280
				3.—DISTRIBUTARIES ..	1,33,737	1,81,660	3,18,297
Receipts from Plantations ..	2,423	1,466	3,891	4.—DRAINAGE WORKS ..	6,691	974	7,565
" " other Canal produce	393	2	395	TOTAL I.B.	2,77,459	4,99,300	6,80,859
Rent of buildings ..	1	..	1	(I.C)—COMPENSATION.			
				(II).—ESTABLISHMENT.			
				5.—DIRECTION AND ACCOUNTS (a)	12,025	24,877	97,502
Fines ..	624	440	1,064	6.—EXECUTIVE ESTABLISHMENT	43,736	69,397	1,13,132
				(7A.)—REVENUE Do. (b)	98,918	1,01,668	1,99,881
				TOTAL	1,34,573	1,95,941	3,60,515
				III.—TOOLS AND PLANT.			
				12.—MISCELLANEOUS ..	3,900	6,119	9,979
Miscellaneous and other Receipts.	10,387	2,999	13,386	TOTAL	3,800	6,119	9,979
				(IV).—DIFFERED OF REVENUE			
				V.—PROFIT AND LOSS.			
				TOTAL	4,35,992	6,24,216	10,60,207
				Indirect Charges debitable to Revenue Account as per Account No. 5.	21,640	27,439	49,079
Total	5,33,670	4,35,173	9,68,843	TOTAL CHARGES	1,67,632	6,51,647	11,09,279
Share of Land Revenue collected in the Civil Department.	..	..	..	Balance, Net Revenue	1,23,041	—97,188	23,653
Interest on sale proceeds of waste land cancelled.	47,125	1,20,080	1,67,205	GRAND TOTAL	5,80,678	5,51,160	11,31,837
Total Receipts	5,80,674	5,51,160	11,31,837				

(a). Excludes share of accounts since 1912-13.

(b). Includes Rs. 12,103 on account of Landholders' fees.

IRRIGATION BRANCH.

OFFICE OF ACCOUNTANT-GENERAL.

PUNJAB PROVINCE.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Bari Doab Canal Project.

No. 4.—INTEREST ACCOUNT FOR AND TO END OF 1915-16.

	AMOUNT.		AMOUNT.
	Rs.		Rs.
Total Interest charges to end of 1914-15 ..	25,04,706	Net Revenue realized to end of 1914-15 ..	1,23,046
Do. for the year 1915-16 ..	..	Do. during 1915- ..	-97,488
Total outlay to 31st March 1916 = Rs. 2,00,00,904	...	Balance net Interest charges ...	31,81,409
Less $\frac{1}{2}$ outlay during 1915-16 = .. 4,40,000	...		
Mean capital at charge = .. 2,02,20,898	...		
Interest at 3-4725 ..	7,02,171		
Total ..	32,03,907	Total ..	32,06,967

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

PARTICULARS.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue	42,150	1,600	43,750
Leave and Pension Allowances	3,31,030	27,248	3,71,278
Total	3,76,180	38,848	4,15,028
REVENUE—			
Leave and Pension Allowances	21,610	27,432	49,072
Total	21,610	27,432	49,072

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CURRENT SANCTIONS.			Total charges to date against old and current sanctions.	REMARKS.
	Charges to date.	Amount of Sanctioned Estimate.	Unspent Balance of Estimate.		
	Rs.	Rs.	Rs.	Rs.	
DIRECT CHARGES—					
Works	1,55,23,300	1,63,86,298	8,62,992	1,55,23,300	Revised estimate sanctioned in Secretary of State's despatch No. C.P. IV, dated 17th February 1911.
Establishment	27,30,133	35,49,734	8,19,601	27,30,133	
Tools and Plant	15,12,958	17,16,908	2,02,920	15,12,958	
Suspense Balance	9,62,460	3,00,000	-6,62,460	9,62,460	
Total	2,07,28,890	2,16,51,940	12,23,041	2,07,28,890	
Less Receipts on Capital Account	61,932	2,20,000	2,20,000	61,932	
Net Total	2,00,66,958	2,16,59,940	10,02,976	2,06,66,958	
INDIRECT CHARGES—					
Capitalized abatement of Land Revenue	43,750	1,47,500	1,03,750	43,750	
Leave and Pension Allowances	3,71,278	5,10,962	1,39,684	3,71,278	
Total	4,15,028	6,58,462	2,43,434	4,15,028	
GRAND TOTAL	2,10,81,986	2,23,28,402	12,46,410	2,10,81,986	

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Jhelum Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNTS.	DIRECT CHARGES.			Cost of construction as now estimated.
	Imperial.			
	Previous.	1915-16.	Total.	
	Rs.	Rs.	Rs.	
I.—WORKS.				
1.—HEAD WORKS—				
A.—Preliminary Expenses	7,349	...	7,349	
B.—Land	11,020	...	11,020	
C.—Works	1,818	...	1,818	
E.—Buildings	1,86,170	—	1,86,170	
G.—Miscellaneous	36,672	1,512	38,021	
P.—Maintenance	14,254	718	14,972	
Total	2,57,500	2,051	2,59,551	
2.—MAIN CANAL AND BRANCHES—				
A.—Preliminary Expenses	1,10,010	1,053	1,11,063	
B.—Land	9,10,611	4,911	9,21,558	
D.—Regulators	27,78,208	5,30,891	33,18,192	
E.—Falls and Weirs	1,68,000	4,232	1,62,238	
F.—River and Hill Torrent Works	1,30,69,588	40,300	1,31,09,878	
G.—Bridges	10,07,236	12,655	10,20,791	
H.—Escapes	2,30,213	19,691	2,58,507	
K.—Buildings	5,70,110	75,031	6,45,080	
L.—Earth-work	1,01,01,720	4,56,174	1,05,23,894	
M.—Plantations	52,269	2,257	54,766	
O.—Miscellaneous	58,058	2,020	60,078	
P.—Maintenance	3,07,531	90,255	3,97,812	
Q.—Loss on Stock	2,095	2,368	5,460	
Total	2,93,75,912	12,21,936	3,95,97,548	
3.—DISTRIBUTARIES—				
A.—Preliminary Expenses	23,921	4,680	28,601	
B.—Land	13,568	51,214	1,37,582	
C.—Work	52,376	2,21,707	2,77,092	
L.—Earth-work	66,203	2,00,150	2,66,353	
O.—Miscellaneous	10,017	(a). 32,111	52,055	
Total	2,15,511	5,16,871	7,01,666	

(a). Includes Rs. 10,792 on account of outlay on settlers' works to be recovered.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Jhelum Canal Project.

No. 2—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated.
	Imperial.			
	Previous.	1915-16.	Total.	
	Rs.	Rs.	Rs.	Rs.
4. DRAINAGE AND PROTECTIVE WORKS—				
A.—Preliminary Expenses	6,958	...	6,958	
C.—Miscellaneous ... .. .	...	127	127	
TOTAL	6,958	127	7,085	
TOTAL I.—WORKS	2,98,85,974	17,33,188	3,16,23,962	3,40,11,855
II.—ESTABLISHMENT.				
5. DIRECTION AND ACCOUNT (a)	8,50,787	48,703	8,99,592	
6. EXECUTIVE	31,42,005	2,39,251	33,81,359	
7. MEDICAL	1,00,611	16,074	1,22,685	
TOTAL	40,00,403	3,04,133	44,03,626	46,02,371
III.—TOOLS AND PLANT.				
1. SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS .. .. .	...	248	248	
2. PLANT AND MACHINERY	28,62,243	—1,084	28,61,159	
3. TOOLS ... .. .	...	—2,436	—2,436	
4. NAVIGATION PLANT ... .. .	...	323	323	
5. CAMP EQUIPAGE ... .. .	...	455	455	
7. OFFICE FURNITURE ... .. .	...	8,568	8,568	
8. REPAIRS AND CARRIAGE	1,38,743	6,706	1,45,539	
MISCELLANEOUS	16,32,235	—62,060	14,70,175	
TOTAL	45,33,221	—51,192	44,70,029	46,81,540
IV.—SUSPENSE ACCOUNT.				
14. STOCK	12,52,036	—77,109	11,74,927	
15. STOCK PURCHASES	—10,829	—5,358	—16,187	
15a. STOCK SALES ... .. .	...	631	631	
17. MISCELLANEOUS ADVANCES	1,224	7,276	8,500	
17. LONDON INVOICES ... .. .	...	...	...
18. LONDON STORES	517	—517	...	
TOTAL	12,42,048	—75,074	11,67,874	6,00,000
GRAND TOTAL	3,97,61,636	19,14,855	4,16,76,491	4,43,93,786
V.—LESS RECEIPTS ON CAPITAL ACCOUNT	75,301	9,094	95,105	11,55,484
NET TOTAL	3,96,96,335	18,94,861	4,15,81,206	4,32,40,282
APPORTIONMENT.				
49—IRRIGATION WORKS	3,95,19,387	18,94,061	4,15,14,348	
43—MINOR WORKS AND NAVIGATION, INTERNAL	66,048	...	66,048	

(a). Excludes share of account commencing from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL:

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Jhelum Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.	(I. A.)—EXTENSIONS AND IMPROVEMENTS.		Rs.	Rs.
				2.—MAIN CANAL BRANCHES	..	20,225	20,225
				TOTAL I. A.	..	20,225	20,225
				(I. B.)—MAINTENANCE AND REPAIRS.			
				1.—HEAD WORKS	..	10,000	10,000
				2.—MAIN CANAL AND BRANCHES	..	2,30,678	2,30,678
				TOTAL I. B.	..	2,50,338	2,50,338
				(II). ESTABLISHMENT.			
Rent of Buildings	..	3,120	3,120	5.—DIRECTION AND ACCOUNTS (a)	..	8,446	8,446
				6.—EXECUTIVE ESTABLISHMENT.	..	44,254	44,254
				7A.—REVENUE Do.	..	0,634	0,634
Miscellaneous and other Receipts	..	3,144	3,144	TOTAL	..	59,334	59,334
				III.—TOOLS AND PLANT.			
				3.—TOOLS	..	—29	—29
				7.—OFFICE FURNITURE	..	71	71
				MISCELLANEOUS	..	3,004	3,004
				TOTAL	..	3,046	3,046
				IV.—REFUND OF REVENUE	..	30	30
				TOTAL	..	3,33,873	3,33,873
				Indirect Charges debitable to Revenue Account as per Account No. 6.	..	8,307	8,307
				TOTAL CHARGES	..	3,42,180	3,42,180
Total	..	6,204	6,264	Balance, Not Revenue	..	—3,35,010	—3,35,010
TOTAL RECEIPTS	..	6,204	6,264	GRAND TOTAL	..	6,264	6,264

(a). Excludes share of accounts.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Upper Jhelum Canal Project.

No. 4—INTEREST ACCOUNT FOR AND TO END OF 1915-16.

	Amount.		Amount.
	Rs.		Rs.
Total Interest charges to end of 1914-15 ...	57,18,174	Not revenue realized during 1915-16 ..	—3,35,916
Do. for the year 1915-16 ...		Balance net Interest charges ...	74,05,009
Total outlay to 31st March 1916 = Rs. 4,15,81,296			
Less half outlay during 1915-16 = " 9,47,480			
Mean capital at charge = " 4,06,33,816			
Interest at 8.4725 per cent = " 14,11,009	14,11,009		
Total ...	71,29,183		71,29,183

No. 5—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue ...	1,62,125	6,200	1,68,325
Leave and Pension Allowances	5,68,819	42,679	6,11,498
Total ..	7,31,044	48,779	7,79,823
REVENUE—			
Capitalization of abatement of Land Revenue ...			
Leave and Pension Allowances		8,307	8,307
Total ..		8,307	8,307
GRAND TOTAL ..	7,31,044	57,086	7,88,130

PARTICULARS.	CURRENT SANCTIONS.			Total charges to date against old and current sanctions.	REMARKS.
	Charged to date.	Amount of Sanctioned Estimate.	Unspent Balance of Estimate.		
	Rs.	Rs.	Rs.	Rs.	
DIRECT CHARGES—					
Works ..	3,16,25,962	3,40,11,836	29,65,893	3,16,25,962	Changes in figures of sanctioned estimate for I—Works and II—Establishment as compared with the sanctions shown in the last account are due to the transfer of Rs. 300,000 from the head II—Establishment of the Upper Jhelum Circle and Rs. 300,000 from Lower Bari Doab Circle to the head I—Works of the Upper Jhelum Circle vide Government of India P. W. D. No. 615 A. I. dated 9th June 1916.
Establishment ..	44,03,026	40,02,371	1,98,745	44,03,026	
Tools and Plant ..	44,79,029	45,81,540	1,02,511	44,79,029	
Suspense Balances ..	11,67,874	6,00,000	—5,67,874	11,67,874	
Total ..	4,16,76,191	4,13,95,766	27,19,277	4,16,76,191	
Less Receipts on Capital Account.	95,195	11,55,483	10,60,285	95,195	
Net Total ..	4,15,81,296	4,32,40,283	16,58,986	4,15,81,296	
INDIRECT CHARGES—					
Capitalized abatement of Land Revenue.	1,68,325	1,10,945	—57,380	1,68,325	
Leave and Pension Allowances.	6,11,498	0,45,332	3,33,834	6,11,498	
Total ..	7,79,823	10,56,277	2,76,454	7,79,823	
GRAND TOTAL ..	4,23,61,119	4,42,96,560	19,35,440	4,23,61,119	

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Shahpur Canal Project—Imperial.

No. 3—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.			Cost of construction as now estimated (Construction Estimate closed on 31st March 1894).	Expenditure against closed Estimates.
	Imperial.				
	Previous.	1915-16.	Total.		
I.—WORKS.	Rs.	Rs.	Rs.	Rs.	Rs.
2.—MAIN CANAL AND BRANCHES—					
B.—Land	3,028	...	3,028		
D.—Regulator	13,187	...	13,187		
G.—Bridges	20,522	...	20,522		
L.—Earth-work	89,974	...	89,974		
TOTAL	1,26,711	...	1,26,711		
3.—DISTRICTUARIES—					
B.—Land	8,219	...	8,219		
C.—Works	16,561	...	16,561		
L.—Earth-work	21,560	...	21,560		
TOTAL	46,340	...	46,340		
TOTAL I.—WORKS	1,75,060	..	1,75,060	1,75,060	1,75,060
II.—ESTABLISHMENT.					
5. DIRECTION.. .. .	7,518	...	7,518		
6. EXECUTIVE.. .. .	27,712	...	27,712		
TOTAL	35,230	..	35,230	35,230	35,230
III.—TOOLS AND PLANT.					
12. MISCELLANEOUS	585	...	585		
13. REPAIRS AND CARRIAGE	28	...	28		
TOTAL	613	...	613	613	613
GRAND TOTAL	2,05,933	...	2,05,933	2,05,933	2,05,933
APPORTIONMENT.					
40—Irrigation Works	2,05,933	...	2,05,933	2,05,933	2,05,933

Note—Capital and Revenue accounts of these Canals will continue to be prepared separately until the Shahpur Branch of the Lower Jhalum Canal has been constructed and opened for Irrigation, vide Secretary to Govt., Punjab; P. W. D. Irrigation Branch letter No. 086 A. I., dated 7-8-1906.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Shahpur Canal Project—Imperial.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.	(I.A.)—EXTENSIONS AND IMPROVEMENTS.	Rs.	Rs.	Rs.
Occupiers' rates ..	21,19,916	76,016	21,95,932	2.—MAIN CANAL AND BRANCHES.	82,216	...	82,238
				3.—DISTRIBUTARIES	14,365	258	14,623
Sales of water ...	1,300	...	1,709	TOTAL I.A. ...	96,603	258	96,861
				(I.B.)—MAINTENANCE AND REPAIRS.			
Receipts from Plantations ..	16,419	157	16,576	2.—MAIN CANAL AND BRANCHES	5,93,894	19,895	6,13,789
Receipts from other Canal produce.	3,835	21	3,856	3.—DISTRIBUTARIES	1,17,025	5,262	1,22,287
Rent of Buildings ...	1,388	...	1,388	TOTAL I.B. ..	7,10,919	25,157	7,36,076
				(I.C.)—COMPENSATION.	553	...	553
Fines ...	1,806	...	1,806	(II.) ESTABLISHMENT			
Miscellaneous and other Receipts.	1,719	...	1,719	5.—DIRECTION AND ACCOUNT.	67,813	5,586	73,399
				6.—EXECUTIVE ESTABLISHMENT.			
				7.—MEDICAL Do. ...	4,53,484	(a) 18,512	4,71,996
				7A.—REVENUE Do. ...			
				7B.—NAVIGATION Do. ...			
				TOTAL ...	5,21,297	21,098	5,45,395
				III.—TOOLS AND PLANT.			
				12.—MISCELLANEOUS	3,109	...	3,109
				13.—REPAIRS AND CARRIAGE	2,012	...	2,012
				TOTAL ...	5,121	...	5,121
Total ..	21,46,154	77,094	22,23,248	(V.)—REFUNDS OF REVENUE	1,233	...	1,233
				TOTAL ...	13,35,726	49,513	13,85,239
Share of Land Revenue collected in the Civil Department.	3,27,215	15,107	3,42,322	Indirect Charges debitab to Revenue Account as per Account No. 5.	74,452	3,374	77,826
				TOTAL CHARGES ...	14,10,178	52,887	14,63,065
Total ...	3,27,215	15,107	3,42,322	Balance, Net Revenue	10,63,191	30,314	11,02,505
TOTAL RECEIPTS ..	24,73,369	92,201	25,65,570	GRAND TOTAL ...	24,73,359	92,201	25,65,570

(a) Includes Rs. 2,312 on account of fees for collection of revenue.

(b) Excludes share of accounts commencing from 1912-13.

IRRIGATION BRANCH.

OFFICE OF ACCOUNTANT-GENERAL.

PUNJAB PROVINCE.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Shahpur Canal Project--Imperial.

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue	5,615	...	5,638
Leave and Pension Allowances	4,343	...	4,343
Total	9,981	..	9,981
REVENUE—			
Capitalization of abatement of Land Revenue	944	...	944
Leave and Pension Allowances	73,508	3,374	76,882
Total	74,452	3,374	77,826
GRAND TOTAL	81,433	3,374	87,807

No. 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CHARGES AGAINST CLOSER SANCTIONS			CURRENT SANCTIONS.				REMARKS.
	Expenditure against Construction Estimate	Expenditure against open canal sanctions.	Total.	Charges to date.	Amount of sanctioned Estimate.	Unspent Balance of Estimate.	Total charges to date against old and current sanctions.	
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	
DIRECT CHARGES—								
Works	1,75,060	..	1,75,060	..	..	..	1,75,060	
Establishment	30,260	..	30,260	..	..	..	30,260	
Tools and Plants	613	..	613	..	..	..	613	
Total	2,05,933	..	2,05,933	..	..	..	2,05,933	
Less—Receipts on Capital Account.	..	..	..	..	..	..	..
Net Total .. ..	..	..	..	..	..	..	..
INDIRECT CHARGES—								
Capitalised abatement of Land Revenue.	5,638	..	5,638	..	..	..	5,638	
Leave and Pension Allowances.	4,343	..	4,343	..	..	..	4,343	
Total	9,981	..	9,981	..	..	..	9,981	
GRAND TOTAL	2,15,914	..	2,15,914	..	..	..	2,15,914	

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Ghaggar Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.								
	Imperial.			Contribution.			Total.		
	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—WORKS.									
1. HEAD WORKS—									
B.—Land	432	...	432	288	...	288	720	...	720
C.—Works	59,817	...	59,817	39,878	...	39,878	99,695	...	99,695
K.—Buildings	2,186	...	2,186	1,458	...	1,458	3,644	...	3,644
TOTAL	62,435	...	62,435	41,624	...	41,624	1,04,059	...	1,04,059
2. MAIN CANAL AND BRANCHES—									
A.—Preliminary Expenses	7,569	...	7,569	5,046	...	5,046	12,615	...	12,615
B.—Land	8,750	...	8,750	8,291	...	8,291	17,044	...	17,044
D.—Regulators	19,682	...	19,682	8,434	...	8,434	28,116	...	28,116
E.—Falls and Weirs ...	1,861	...	1,861	5,049	...	5,049	6,910	...	6,910
G.—Bridges	24,076	...	24,076	27,699	...	27,699	51,775	...	51,775
H.—Escapes	13,188	...	13,188	5,651	...	5,651	18,839	...	18,839
K.—Buildings	5,889	...	5,889	15,385	...	15,385	21,274	...	21,274
L.—Earth-work	77,205	...	77,205	1,10,109	...	1,10,109	1,87,314	...	1,87,314
O.—Miscellaneous	1,837	...	1,837	2,588	...	2,588	4,425	...	4,425
TOTAL	1,60,057	...	1,60,057	1,88,255	...	1,88,255	3,48,312	...	3,48,312
3. DISTRIBUTABLES—									
A.—Preliminary Expenses	403	...	403	...	...	...	403	...	403
B.—Land	3,914	19	3,933	...	...	...	3,914	19	3,933
C.—Works	17,995	...	17,995	...	...	...	17,995	...	17,995
L.—Earth-work	29,210	...	29,210	...	...	...	29,210	...	29,210
O.—Miscellaneous	14,783	...	14,783	8,745	...	8,745	23,528	...	23,528
TOTAL	66,305	19	66,324	8,745	...	8,745	75,050	19	75,069

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Ghaggar Canal Project.

No. 2.—CAPITAL ACCOUNT FOR AND TO END OF 1915-16.

HEADS OF ACCOUNT.	DIRECT CHARGES.									Cost of construction as now estimated (Construction Estimate closed on 31st March 1905.)	Expenditure against closed Estimates.
	Imperial.			Contribution.			Total.				
	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	s.	Rs.
4.—DRAINAGE AND PROTECTIVE WORKS											
L.—Earth-work	5,801	...	5,801	...	..	..	01	...	5,801		
TOTAL	5,801	...	5,801	...	..	...	5,801	..	5,801		
TOTAL L.—WORKS ..	2,04,196	19	2,04,617	2,38,824	..	2,38,824	5,33,222	19	5,33,241	5,33,241	5,33,241
II.—ESTABLISHMENT.											
5.—Direction and Account ..	13,614	..	13,614 ^(a)	8,453	..	8,453	22,067	...	22,067		
6.—EXECUTIVE	43,628	...	43,628	30,392	...	30,392	74,020	...	74,020		
7.—MEDICAL	5,555	..	5,555	..	..	..	5,555	...	5,555		
LEAVE AND PENSION ALLOWANCE ..	..	..	..	5,439	...	5,439	5,439	...	5,439		
TOTAL	62,797	...	62,797	44,284	..	44,284	1,07,081	..	1,07,081	1,07,081	1,07,081
III.—TOOLS AND PLANT.											
12.—MISCELLANEOUS	7,923	..	7,923	2,534	..	2,534	1,457	..	10,457		
TOTAL	7,923	..	7,923	2,534	..	2,534	10,457	..	10,457	10,457	10,457
GRAND TOTAL	3,65,318	10	3,65,337	2,85,442	..	2,85,442	6,50,760	19	6,50,770	6,50,779	6,50,779
V.—LESS RECEIPTS ON CAPITAL ACCOUNT.											
NET TOTAL	3,65,318	10	3,65,337	2,85,442	..	2,85,442	6,50,760	10	6,50,770	6,50,779	6,50,779
APPORTIONMENT.											
43.—M. W. AND NAVIGATION, IMPERIAL	3,65,318	19	3,65,337	2,85,442	...	2,85,442	6,50,760	19	6,50,779		

(a). Share of accounts excluded under Imperial from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Ghaggar Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS	IMPERIAL			CONTRIBUTION			TOTAL		
	Previous	1915-16	Total	Previous	1915-16	Total	Previous	1915-16	Total
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Occupiers' rates	99,957	17,61	1,17,495	..	..	..	99,957	17,538	1,17,495
Receipts from Plantation ..	2	..	2	2	..	2	4	..	4
Receipts from other Canal produce ..	..	..	..	1	..	1	1	..	1
Rent of Buildings	239	2	232	147	1	148	377	3	380
Fines	200	..	200	70	..	70	330	..	330
Miscellaneous and other Receipts ..	151	..	151	120	..	120	301	..	301
Total	1,00,630	17,540	1,18,170	340	1	341	1,00,970	17,541	1,18,511
TOTAL RECEIPTS ..	1,00,630	17,510	1,18,170	340	1	341	1,00,970	17,541	1,18,511

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Ghaggar Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

CHARGES	IMPERIAL.			CONTRIBUTION.			TOTAL.		
	Previous	1915-16.	Total.	Previous.	1915-16.	Total.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.A.)—EXTENSIONS AND IMPROVEMENTS.									
1.—HEAD WORKS...	5,668	1,120	6,688	1,009	74	5,415	13,237	1,860	15,103
2.—MAIN CANAL AND BRANCH	3,928	1,788	5,116	1,311	47	2,775	6,050	2,235	8,894
3.—DISTRIBUTARIES	3,000	..	3,000	..	..	..	3,000	..	3,000
4.—DRAINAGE AND PROTECTIVE WORKS.	801	..	801	..	..	..	80	..	801
TOTAL I. A.	18,207	2,908	21,205	6,000	1,103	7,103	21,207	4,101	26,398
(I. B.)—MAINTENANCE AND REPAIRS.									
1.—HEAD WORKS...	27,750	1,904	29,723	18,500	1,309	19,816	46,265	3,273	49,538
2.—MAIN CANAL AND BRANCH	61,530	4,953	66,483	58,867	1,229	60,106	1,52,400	9,192	1,58,592
3.—DISTRIBUTARIES	22,107	4,720	26,923	160	..	160	22,366	4,726	27,092
4.—DRAINAGE WORKS	832	..	832	..	..	..	832	..	832
TOTAL I. B.	1,44,223	11,643	1,55,966	77,642	2,538	80,090	2,21,863	14,191	2,35,054
(I. C.)—COMPENSATION	10,008	..	10,008	..	..	..	10,908	..	10,008
(II.)—ESTABLISHMENT.									
5.—DIRECTION AND ACCOUNT (a)	46,202	3,819	50,081	4,277	222	4,499	50,539	4,041	54,680
(6)—EXECUTIVE ESTABLISHMENT	1,58,367	14,372	1,72,739	15,179	627	16,106	1,73,846	14,089	1,88,845
(7)—MEDICAL Do.	6,302	..	6,302	..	..	..	6,302	..	6,302
(7.A.)—REVENUE Do.	1,03,170	(b) 527	1,03,997	..	..	..	1,03,470	527	1,03,997
(7.D.)—LEAVE AND PENSION ALLOWANCES.	..	..	..	2,763	119	2,882	2,763	119	2,882
TOTAL	3,19,401	18,718	3,33,119	22,519	938	23,497	3,36,920	19,686	3,56,606
(III.)—TOOLS AND PLANT									
12.—MISCELLANEOUS	866	26	892	..	..	..	..	..	..
13.—REPAIRS AND CARRIAGE...	3,358	140	3,507	1,672	55	1,727	4,364	178	4,542
TOTAL	2,092	166	2,258	1,672	55	1,727	4,364	178	4,542
IV.—REFUNDS OF REVENUE	2,432	..	2,432	20	..	20	2,432	..	2,432
TOTAL	4,93,051	33,392	5,26,443	1,07,763	4,764	1,12,517	5,40,894	38,150	6,38,960
Indirect Charges debitable to Revenue Account as per Account No. 5.	41,016	2,021	43,037	..	..	..	41,016	2,021	43,037
TOTAL	5,37,067	36,013	5,73,080	1,07,763	4,764	1,12,517	5,44,820	40,777	6,35,597
Balance Not Revenue	-4,30,437	-18,473	-4,54,910	-1,07,413	-4,763	-1,12,176	-5,43,850	-23,236	-5,67,086
GRAND TOTAL	1,06,630	17,540	1,24,170	340	1	341	1,00,970	17,541	1,18,511

(a). Share of account excluded under Imperial from 1912-13.
 (b). Includes Rs. 527 as fee for collection of revenue.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Ghaggar Canal Project

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
CAPITAL—			
Capitalization of abatement of Land Revenue	2,000	..	2,000
Leave and Pension Allowances .. { Imperial	8,792	..	8,792
.. { Contribution	5,439	..	5,439
Total	16,231	...	16,231
<i>Deduct—Leave and Pension Allowances debitable to Bikanir State treated as direct charge transferred to Account No. 2 of the canal.</i>	5,439	..	5,439
Not debitable to Imperial	10,792	...	10,792
REVENUE—			
Capitalization of abatement of Land Revenue .. ..	..	..	..
Leave and Pension Allowances .. { Imperial	44,016	2,621	46,637
.. { Contribution	2,763	119	2,882
Total	46,779	2,740	49,519
<i>Deduct—Leave and Pension Allowances debitable to Bikanir State treated as direct charge and transferred to Account No. 5 of the canal</i>	2,763	119	2,882
Total	44,016	2,621	46,637

No 6.—STATEMENT COMPARING CHARGES TO DATE WITH SANCTIONED ESTIMATE.

PARTICULARS.	CHARGES AGAINST CLOSED SANCTIONS.			CURRENT SANCTIONS.			Total charges to date against old and current sanctions	REMARKS.
	Expenditure against Construction Estimate	Expenditure against open canal sanctions.	Total	Charges to date.	Amount of Sanctioned Estimate.	Unspent Balance of Estimate		
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
DIRECT CHARGES—								
Works	4,99,214	35,027	5,33,241	..	..	..	5,33,241	
Establishment	1,00,970	6,111	1,07,081	..	..	..	1,07,081	
Tools and Plant	10,048	400	10,457	..	..	..	10,457	
Total	6,09,232	41,547	6,50,779	..	..	..	6,50,779	
<i>Less Receipts on Capital Account.</i>								
Net Total	6,09,232	41,547	6,50,779	..	..	..	6,50,779	
INDIRECT CHARGES—								
Capitalized abatement of Land Revenue.	1,900	100	2,000	..	..	..	2,000	
Leave and Pension Allowances.	7,968	824	8,792	..	..	..	8,792	
Total	9,868	924	10,792	..	..	..	10,792	
GRAND TOTAL	6,19,100	42,471	6,61,571	..	..	..	6,61,571	

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Sutlej Inundation Canals including Hajiwah Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	INTERNAL.			CHARGES.	- IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.	(I. A.)—EXTENSIONS AND IMPROVEMENTS.	Rs.	Rs.	Rs.
Occupiers' rates ..	20,97,285	3,06,518	23,05,801	1.—MAIN CANAL AND BRANCHES	7,70,980	52,206	8,23,281
				2.—DISTRIBUTARIES ..	1,30,895	1,032	1,38,827
				3.—DRAINAGE AND PROTECTIVE WORKS.	5,028	..	5,688
Sales of water ..	2,265	100	2,458	TOTAL I. A. ..	9,10,560	54,227	9,73,706
				(I. B.)—MAINTENANCE AND REPAIRS.			
				1.—MAIN CANAL AND BRANCHES	26,12,604	99,161	27,11,765
Receipts from Plantations..	63,230	1,412	64,612	2.—DISTRIBUTARIES ..	1,37,547	12,384	1,49,931
				3.—DRAINAGE WORKS ..	3,540	..	3,540
				TOTAL I. B. ..	27,53,691	1,11,535	28,65,226
Receipts from other Canal produce.	33,802	0	33,802	LC.—COMPENSATION ..	4,091	..	4,091
				(II) ESTABLISHMENT.			
				1.—DIRECTION AND ACCOUNT.	4,67,946	12,530	4,80,476
Rent of Buildings ..	..	..	..	2.—EXECUTIVE ESTABLISHMENT	14,40,201	60,309	15,00,510
				3.—MEDICAL Do. ..	23,148	1,601	21,709
				4A.—REVENUE Do. ..	3,28,761	20,915	(a) 1,28,579
Fines ..	52,001	2,272	54,303	TOTAL ..	23,36,05	1,04,216	24,40,274
				III.—TOOLS AND PLANT.			
				1.—SCIENTIFIC INSTRUMENTS AND DRAWING MATERIALS.		..	..
Miscellaneous and other Receipts.	..	..	..	2.—PLANT AND MACHINERY		..	..
				3.—TOOLS ..		108	108
				4.—NAVIGATION PLANT		..	..
Total ..	31,50,617	3,10,402	31,61,015	5.—CAMB EQUIPAGE		32	32
				6.—LIVE STOCK		..	..
				7.—OFFICE FURNITURE ..		33	33
Contribution ..	12,45,539	..	12,45,539	8.—REPAIRS AND CARRIAGE..	16,205	1,022	17,287
				MISCELLANEOUS ..	27,137	295	27,432
				TOTAL ..	43,402	1,490	44,892
Other Labour ..	39,24,410	..	39,24,410	IV.—REFUNDS OF REVENUE.	3,188	130	3,318
				V.—PROFIT AND LOSS	348	..	348
				EXPENSE ACCOUNT			
Share of Land Revenue collected to the Civil Department.	88,38,674	3,11,338	91,40,872	Miscellaneous Advances ..	—1	39	+38
				Stock ..	+23,601	—743	+22,701
				Stock purchases ..	—98	97	+1
TOTAL RECEIPTS ..	1,71,59,300	6,21,740	1,77,81,136	Stock Sales ..	..	..	..
				TOTAL ..	+23,407	—607	+22,800
				TOTAL ..	60,83,755	2,70,993	63,54,748
TOTAL RECEIPTS ..	1,71,59,300	6,21,740	1,77,81,136	Other Labour ..	39,24,410	..	39,24,410
				TOTAL ..	1,00,08,165	2,70,993	1,02,79,158
				Indirect Charges debitable to Revenue Account as per Account No. 5.	3,00,148	14,691	3,71,739
TOTAL RECEIPTS ..	1,71,59,300	6,21,740	1,77,81,136	TOTAL CHARGES ..	1,03,68,813	2,85,684	1,06,53,897
				Balance, Net Revenue ..	67,01,093	3,30,156	71,27,239
				GRAND TOTAL ..	1,71,59,300	6,21,740	1,77,81,136

(a) Includes Rs. 8,914 on account of fees for collection of revenue.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Sutlej Inundation Canals including Hajiwah Canal Project.

No. 5—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-16.	Total.
	Rs .	Rs.	Rs.
REVENUE—			
Capitalization of abatement of Land Revenue	5		5
Leave and Pension Allowances	3,60,143	14,591	3,74,734
Total	3,60,148	14,591	3,74,739

" OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Sutlej Inundation Canals Hajiwah Canal Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

REVENUES.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rates ..	4,51,196	34,428	4,85,624	(I. A.)—EXTENSIONS AND IMPROVEMENTS.			
				2.—MAIN CANAL & BRANCHES	32,956	2,705	35,661
				3.—DISTRICTUARIES ..	15	...	15
				TOTAL I. A. ..	32,970	2,705	35,675
Sales of water ..	11	..	11	(I. B.)—MAINTENANCE AND REPAIRS.			
				2.—MAIN CANAL & BRANCHES.	2,41,219	20,532	2,61,751
Receipts from Plantations..	157	..	157	3.—DISTRICTUARIES ..	12	..	12
Receipts from other Canal produce.	3	..	3	TOTAL I. B. ..	2,41,231	20,532	2,61,763
				(I. C.) COMPENSATION ..			
				(II)—ESTABLISHMENT.			
Miscellaneous and other Receipts.	50	..	50	5.—DIRECTION AND ACCOUNT..	(b) 30,008	..	30,008
				6.—EXECUTIVE ESTABLISHMENT	67,122	9,097	76,219
				(7 A).—REVENUE DO. ..	31,782	(a) 3,376	35,158
				TOTAL ..	1,28,912	12,176	1,41,088
Total ..	4,51,180	34,428	4,85,608	(II).—TOOLS AND PLANT			
				(9) NAVIGATION PLANT ..	2,455	219	2,674
				(12).—MISCELLANEOUS ..			
				(13).—REPAIRS AND CARRIAGE			
				TOTAL ..	2,455	219	2,674
				(IV).—REFUNDS OF REVENUE.	620	..	620
				(V).—PROFIT AND LOSS.			
				TOTAL ..	1,08,218	38,022	1,46,240
Share of land revenue collected in the Civil Department.	4,30,306	35,341	4,65,647	Indirect charges debitable to Revenue Account as per Account No. 5.	15,017	1,747	16,764
Interest on sale proceeds of waste lands benefited				TOTAL CHARGES ..	4,21,265	37,769	4,59,034
	4,30,306	35,341	4,65,647	Balance Not Revenue ..	4,70,630	32,010	5,02,640
TOTAL RECEIPTS ..	9,00,795	69,509	9,70,304	GRAND TOTAL ..	9,00,795	69,509	9,70,304

(a). Includes Rs. 1,632 on account of fees paid for collection of revenue.

(b). Excludes Accounts commencing from 1912-13.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Lower Sutlej Inundation Canals Hajiwah Canal Project.

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-16.	Total,
	Rs.	Rs.	Rs.
REVENUE—			
Leave and Pension Allowances	18,047	1,747	19,794
Total	18,047	1,747	19,794

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Chenab Inundation Canals Project.

No. 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rates ..	24,76,085	2,04,177	26,80,262	I.A.—EXTENSIONS AND IMPROVEMENTS.			
				(2).—MAIN CANAL & BRANCHES	8,85,012	3,858	8,88,870
				(1).—DISTRIBUTARIES ..	1,33,643	7,355	1,40,998
Sales of water ..	3,369	139	3,508	4).—DRAINAGE AND PROTECTIVE WORKS.	25,101	...	25,101
				TOTAL I. A. ..	10,43,756	11,214	10,55,000
Receipts from Plantations	90,850	1,822	92,672	I.B.)—MAINTENANCE AND REPAIRS.			
				(2).—MAIN CANAL & BRANCHES	30,67,282	90,888	31,58,170
Receipts from other Canal produce.	42,105	208	42,313	(1).—DISTRIBUTARIES ..	1,20,031	5,250	1,25,281
				4).—DRAINAGE WORKS ..	90,993	750	91,743
Rent of Buildings ..	1,058	37	1,095	TOTAL I. B. ..	32,78,306	1,05,894	33,84,200
Fines ..	30,723	465	31,188	I. C.—COMPENSATION ..	1,932	...	1,932
Miscellaneous and other receipts.	2,560	255	2,815	II. ESTABLISHMENT.			
				(5)—DIRECTION AND ACCOUNT	5,00,595	(b) 11,218	5,11,813
				(6).—EXECUTIVE ESTABLISHMENT		(c) 36,300	16,41,212
				7).—MEDICAL Do. ..	16,01,813		
				7 (A.)—REVENUE Do. ..			
				TOTAL ..	21,05,408	47,617	21,53,025
Total ..	26,16,361	2,07,435	28,23,796	(III). TOOLS AND PLANT			
				(12)—MISCELLANEOUS			
				(8).—REPAIRS AND CARRIAGE	30,485	526	31,011
Contribution ..	11,47,500	..	11,47,500	TOTAL ..	30,485	526	31,011
Chamber Labour ..	24,08,114	..	24,08,114	IV.—REFUNDS OF REVENUE	9,095	261	9,356
				V.—PROFIT AND LOSS ..	425	..	425
				TOTAL ..	9,520		9,781
Total ..	61,70,981	2,07,435	63,78,416	CHAMBER LABOUR ..	24,08,114	..	24,08,114
				TOTAL ..	24,08,114		24,08,114
Share of Land Revenue collected in the Civil Department.	93,65,128	2,04,100	95,69,228	indirect Charges debitable to Revenue Accounts as per Account No. 3.	3,14,213	7,041	3,21,254
				TOTAL CHARGES ..	92,21,767	1,72,553	93,94,320
				Balance Not Revenue ..	63,15,342	2,08,072	65,23,414
TOTAL RECEIPTS ..	1,55,37,100	4,71,625	1,60,08,725	GRAND TOTAL ..	1,55,37,109	4,71,625	1,60,08,734

(a). Includes Rs. 5,300 on account of fees for collection of Revenue,
 (b). Excludes accounts commencing from 1912-13.

IRRIGATION BRANCH.

OFFICE OF ACCOUNTANT-GENERAL.

PUNJAB PROVINCE.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Chenab Inundation Canals Project.

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
Revenue—			
Capitalization of abatement of Land Revenue	8,161	270	8,431
Leave and Pension Allowances	3,36,082	6,666	3,42,748
Total	3,44,243	7,011	3,51,254

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Muzaffargarh Inundation Canals Project.

No 3.—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES.	IMPERIAL.		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Proprietors' rates ...	28,79,336	2,67,246	31,46,582	(I. A.)—EXTENSIONS AND IMPROVEMENTS.			
				2.—MAIN CANAL AND BRANCHES	7,06,988	9,613	7,16,601
				3.—DISTRIBUTARIES	84,770	14,749	99,525
				4.—DRAINAGE AND PROTECTIVE WORKS	20,430	—32	20,398
Sales of water ...	1,625	7	1,632	TOTAL I. A. ..	8,14,194	24,170	8,38,364
				(I. B.)—MAINTENANCE AND REPAIRS.			
Receipts from Plantations ...	1,10,819	5,826	1,16,645	2.—MAIN CANAL AND BRANCHES	26,07,320	1,58,396	28,65,726
				3.—DISTRIBUTARIES	2,36,543	32,760	2,69,303
				4.—DRAINAGE WORKS	33,817	5,061	38,878
				TOTAL I. B. ..	29,07,680	1,96,207	31,63,887
Receipts from other Canal produce.	6,721	577	7,298	(I. C.)—COMPENSATION.			
				II.—ESTABLISHMENT.	7,632	...	7,632
				5.—DIRECTION AND ACCOUNT.	5,89,980	(b) 22,502	6,12,482
				6.—EXECUTIVE ESTABLISHMENT.	13,39,012	66,871	14,05,883
Fines ...	20,715	65	20,780	(7 A)—REVENUE DO. ...	6,33,694	(a) 36,107	6,69,801
				TOTAL ...	25,62,686	1,25,660	26,88,346
				III.—TOOLS AND PLANT.			
Miscellaneous and other Receipts.	5,510	2,203	7,713	1.—SCIENTIFIC INSTRUMENTS	...	110	110
				2.—PLANT AND MACHINERY	...	...	...
				3.—TOOLS	...	078	078
				4.—NAVIGATION	...	...	...
				5.—CART EQUIPAGE	...	11	11
				6.—LIVE STOCK	...	...	...
				7.—OFFICE FURNITURE	...	220	220
				8.—REPAIRS AND CARRIAGE	18,476	1,408	19,884
				12.—MISCELLANEOUS	36,873	643	37,516
Total ...	30,24,756	2,75,029	33,00,685	TOTAL ...	51,819	3,370	55,189
				IV.—REFUNDS OF REVENUE.	1,131	..	1,131
				V.—PROFIT AND LOSS.	4	...	4
Contribution ...	8,01,270	...	8,01,270	SUBSISTENCE ACCOUNT.			
				Miscellaneous advances	...	71	71
Other labour ...	24,34,233	...	24,34,233	Stock	55,086	—9,388	45,698
				Stock sales	...	...	...
				Stock purchases	—13	—14	—27
				London stores	...	...	...
				TOTAL	55,673	—9,331	46,342
Total ...	02,60,258	2,75,929	05,36,187	Other labour	24,34,233	...	24,34,233
				TOTAL	89,98,092	3,10,046	92,18,138
Share of Land Revenue collected in the Civil Department.	1,02,52,485	3,70,281	1,06,22,766	Indirect Charges debitable to Revenue Account as per Account No. 5.	3,78,060	17,892	3,95,952
				TOTAL CHARGES	92,76,152	3,27,938	96,04,090
				Balance, Not Revenue	72,30,601	2,88,206	75,18,807
TOTAL RECEIPTS	1,65,12,753	6,46,213	1,71,58,966	GRAND TOTAL	1,65,12,753	6,46,213	1,71,58,966

(a).—Includes Rs. 7,998 on account of fees for collection of revenue.
 (b).—Excludes accounts from 1912-13.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Muzaffargarh Inundation Canals Project.

No. 5.—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1916-16.

Particulars.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
Revenue—			
Capitalization of abatement of Land Revenue	18,055	300	18,355
Leave and Pension Allowances	3,60,005	17,592	3,77,597
Total	3,78,060	17,892	3,95,952

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Shahpur Canal Project—Provincial.

No. 8—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	PROVINCIAL			CHARGES.	IMPERIAL		
	Previous.	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rates	8,19,200	29,277	8,48,477	(1A.)—EXTENSIONS AND IMPROVEMENTS.			
				2.—MAIN CANAL AND BRANCHES	33,583	..	33,583
				3.—DISTRIBUTARIES	11,487	..	11,487
				TOTAL I. A.	45,070	..	45,070
Sales of water	6,821	600	7,421	(1. B.)—MAINTENANCE AND REPAIRS.			
				2.—MAIN CANAL AND BRANCHES	2,24,746	14,041	2,38,807
				3.—DISTRIBUTARIES	62,053	5,288	67,351
Receipts from Plantations	5,108	..	5,108	TOTAL	2,86,829	19,329	3,06,158
				(I.C.)—COMPENSATION	62	..	62
Receipts from other Canal produce.	466	20	486	II.—ESTABLISHMENT			
Water power	926	..	926	5.—DIRECTION AND ACCOUNTS	46,596	4,745	51,341
Fines	713	..	713	6.—EXECUTIVE ESTABLISHMENT	3,10,140	(b) 14,223	3,24,363
				7.—MEDICAL Do.			
				7A.—REVENUE Do.			
				TOTAL	3,66,736	18,969	3,76,704
Miscellaneous and other Receipts.	3,693	..	3,693	III.—TOOLS AND PLANT			
				12.—MISCELLANEOUS	1,437	..	1,437
				13.—REPAIRS AND CARRIAGE	1,093	..	1,093
				TOTAL	3,130	..	3,130
Total	8,35,924	29,902	8,65,826	V.—PROFIT AND LOSS	616	..	616
				Total	6,92,443	38,297	7,30,740
Share of Land Revenue collected in the Civil Department.	1,08,747	6,457	1,15,204	Indirect Charges debitable to Revenue Account as per Account No. 5.	51,434	2,656	54,090
				TOTAL CHARGES	7,44,077	40,953	7,85,030
				Balance Net Revenue	2,61,598	—4,594	2,57,004
TOTAL RECEIPTS	10,05,676	30,359	10,42,034	GRAND TOTAL	10,04,675	36,359	10,42,034

(a). Excludes share of accounts commencing from 1912-13.

(b). Includes Rs. 783 on account of fees for collection of revenue.

IRRIGATION BRANCH.

PUNJAB PROVINCE.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Shahpur Canal Project—Provincial.

No. 5—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
REVENUE—			
Capitalization of abatement of Land Revenue	1,693	..	1,693
Leave and Pension Allowances	49,941	2,656	52,597
Total ..	51,634	2,656	54,290

" OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Ravi Inundation Canals Project.

No. 3—REVENUE ACCOUNT FOR AND TO END OF 1915-16.

RECEIPTS.	IMPERIAL.			CHARGES	IMPERIAL.		
	Previous	1915-16.	Total.		Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Occupiers' rates ..	1,04,801	382	1,05,273	(I.A.) EXTENSIONS AND IMPROVEMENTS.			
				(2)—MAIN CANAL & BRANCHES	500	..	500
				TOTAL I. A. ..	500	..	500
Sales of water ..	297	..	297	(I.B.)—MAINTENANCE AND REPAIRS.			
				(2)—MAIN CANAL & BRANCHES	89,597	..	
				3.—DISTRICTUARIAT ..	9,522	..	9,522
				TOTAL I. B. ..	99,119	..	99,119
Fines ...	36	..	36	I C.—COMPENSATION ..	34	..	34
				II.—ESTABLISHMENT.			
				(5).—DIRECTION AND ACCOUNT	(a) 17,856	2,088	19,943
Miscellaneous and other Receipts.	8	..	8	(6).—EXECUTIVE ESTABLISHMENT			
				(7).—MEDICAL Do.	1,15,051	(b) 2	1,15,053
				(A).—ELVECT Do.			
				TOTAL II ..	1,32,906	2,090	1,34,996
				(III). TOOLS AND PLANT			
TOTAL ..	1,05,232	382	1,05,614	(12).—MISCELLANEOUS ..	1,722	..	1,722
				(13).—RETAINS AND CARRIAGE ..	915	..	915
				TOTAL ..	2,637	..	2,637
				IV.—REFUNDS OF REVENUE.			
				TOTAL ..	1,000	..	1,000
Share of Land Revenue collected in the Civil Department.	1,25,475	888	1,26,363	Indirect Charges debitable to Revenue Accounts as per Account No 6.	18,000	293	18,293
				TOTAL CHARGES ..	2,54,806	2,383	2,57,189
				Balance, Net Revenue ..	—24,101	—1,113	—25,214
TOTAL RECEIPTS ..	2,30,707	1,270	2,31,977	GRAND TOTAL ..	2,30,707	1,270	2,31,977

(a). Share of Account excluded from 1912-13.

(b). Includes Rs. 2 on account of fees for collection of revenue.

OFFICE OF ACCOUNTANT-GENERAL.

ADMINISTRATIVE ACCOUNTS FOR THE YEAR 1915-16.

Ravi Inundation Canals Project.

No 5—ACCOUNT OF INDIRECT CHARGES FOR AND TO END OF 1915-16.

Particulars.	Previous.	1915-16.	Total.
	Rs.	Rs.	Rs.
REVENUE—			
Leave and Pension Allowances	18,606	293	18,899
Total	18,606	293	18,899

